

[LOGOUT](#)[JOIN](#)[GIVE](#)[EVENTS](#)[About MAA](#)[Membership](#)[MAA Publications](#)[Meetings](#)[Competitions](#)[Programs](#)[Communities](#)[News](#)

## Programs

[Submit an NSF Proposal with MAA](#)[MAA Distinguished Lecture Series](#)[Curriculum Resources](#)[Outreach Initiatives](#)[Professional Development](#)["Best Practices" Statements](#)[CoMinDS](#)[MAA Travel Grants for Project ACCESS](#)[OPEN Math](#)[PIC Math](#)[Course Resources](#)[Industrial Math Case Studies](#)[Participating Faculty](#)[2020 PIC Math Student Showcase](#)[Previous PIC Math Workshops on Data Science](#)[Project NExT](#)[StatPREP](#)[Virtual Programming](#)[Home](#) » [Professional Development](#) » [PIC Math](#) » [Participating Faculty](#)

## Participating Faculty

[View published](#) [New draft](#) [Manage display](#) [Moderate](#) [Outline](#) [Convert](#) [Devel](#)

Revision state: *Published*  
Most recent revision: *Yes*  
Actions: [Unpublish this revision](#)

## 2021-2022 Cohort

<b>Joseph Fox</b> , <i>Aquinas College</i> <b>Industrial Partner:</b> Aquinas College Registrar's Office <b>Final Report Title:</b> Predicting the Success of Incoming College Students	<b>Ben Stucky</b> , <i>Beloit College</i> <b>Industrial Partner:</b> Open Arms Free Clinic <b>Final Report Title:</b> Predicting the Top 3 Locations in Walworth County for a Mobile Health Clinic: An Application of the Maximal Covering Location Problem	<b>Kathryn Montovan</b> , <i>Bennington College</i> <b>Industrial Partner:</b> Bennington College Buildings and Grounds <b>Final Report Title:</b> Insulation of Commercial Buildings: Monetary Loss & Environmental Impact
<b>Tricia Phillips</b> , <i>Birmingham-Southern College</i> <b>Industrial Partner:</b> World Rugby Shop <b>Final Report Title:</b> A Detailed Look into World Rugby Shop's International Commerce	<b>Jie Zhong</b> , <i>California State University, Los Angeles</i> <b>Industrial Partner:</b> Delta Team from City of Los Angeles <b>Final Report Title:</b> Analysis of Loans From the Paycheck Protection Program Within the City of Los Angeles	<b>Alexander Chen</b> , <i>California State University, Dominguez Hills</i> <b>Industrial Partner:</b> General Electric <b>Final Report Title:</b> Deep Learning Facial Expression Recognition
<b>Amy N Langville</b> , <i>College of Charleston</i> <b>Industrial Partner:</b> Mission Solutions Group <b>Final Report Title:</b> Scoring and Ranking Contract Solicitations: Mission Solutions Group	<b>Amanda Mangum</b> , <i>Converse University</i> <b>Industrial Partner:</b> Upstate Family Resource Center <b>Final Report Title:</b> Using Machine Learning to Predict the Number of Times Aid is Requested from a Local Nonprofit Agency	<b>Min A and Dondra Bailey</b> , <i>Coppin State University</i> <b>Industrial Partner:</b> Institute for Systems Biology Cancer Gateway in the Cloud <b>Final Report Title:</b> Clinical Biospecimen Data Analysis Using the ISB-Cancer Gateway Cloud
<b>Guillermo Alvarez</b> , <i>Cuesta College</i> <b>Industrial Partner:</b> Department of Public Works <b>Final Report Title:</b> Improving the Waste Collection System in a Downtown Area	<b>Eddie Tu</b> , <i>Dickinson College</i> <b>Industrial Partner:</b> Salesforce <b>Final Report Title:</b> Hidden Secrets Between Hobbies and Career Paths	<b>Vinodh Kumar Chellamuthu</b> , <i>Dixie State University</i> <b>Industrial Partner:</b> Saint George Police Department <b>Final Report Title:</b> Analysis of Police Beats by Logistic Regression and ANOVA testing
<b>Rachael Neilan</b> , <i>Duquesne University</i> <b>Industrial Partner:</b> Auberle Social Services <b>Final Report Title:</b> Analysis of follow-up times for families discharged from opioid addiction treatment facilities	<b>Alberto A. Condori</b> , <i>Florida Gulf Coast University</i> <b>Industrial Partner:</b> Lee County Mosquito Control District <b>Final Report Title:</b> Modeling the Spread of West Nile Virus in Southwest Florida	<b>Patrick McFaddin</b> , <i>Fordham University</i> <b>Industrial Partner:</b> Red Ventures <b>Final Report Title:</b> Article Summarization
<b>Kim Spayd</b> , <i>Gettysburg College</i> <b>Industrial Partner:</b> NBC Sports Regional Networks <b>Final Report Title:</b> What Influences Viewership of NBA Games: Using Linear Regression to Predict Audience Delivery	<b>Laurie Zack</b> , <i>High Point University</i> <b>Industrial Partner:</b> Phillips Collection <b>Final Report Title:</b> Analyzing Relationships in the Furniture Purchasing Market	<b>Hala Nelson &amp; Roger Thelwell</b> , <i>James Madison University</i> <b>Industrial Partner:</b> Harrisonburg VA Fire Department <b>Final Report Title:</b> Data to the Rescue
<b>Anna Zemlyanova</b> , <i>Kansas State University</i> <b>Industrial Partner:</b> Sunset Zoo of Manhattan, KS <b>Final Report Title:</b> Analysis of the Attendance Data for Sunset Zoo, Manhattan, KS	<b>Brooks K Emerick</b> , <i>Kutztown University</i> <b>Industrial Partner:</b> Borough of Kutztown Wastewater Management Department <b>Final Report Title:</b> Implementing a New Water Billing System	<b>Prakash Ghimire</b> , <i>Louisiana State University at Alexandria</i> <b>Industrial Partner:</b> Pecan Bayou Sub-division, Alexandria Louisiana. <b>Final Report Title:</b> Multiple Linear Regression (MLR) Model to Predict Real Estate Prices in The Pecan Bayou Sub-division, Alexandria Louisiana.
<b>Junyuan Lin</b> , <i>Loyola Marymount University</i> <b>Industrial Partner:</b> Loyola Marymount University Soccer Team <b>Final Report Title:</b> Efficiently Creating Force-Velocity Profiles for Student Athletes	<b>Laura Stell</b> , <i>Mars Hill University</i> <b>Industrial Partner:</b> Madison County Transportation Authority <b>Final Report Title:</b> Madison County Transportation Cost Efficiency	<b>Baojing Ma</b> , <i>Millersville University of Pennsylvania</i> <b>Industrial Partner:</b> The Lancaster City Bureau of Fire <b>Final Report Title:</b> Fire Findings: An Analysis of Fire Risk in Columbia Borough and Lancaster City
<b>Hgoe Do</b> , <i>Missouri State University</i> <b>Industrial Partner:</b> SouthWest Wastewater Treatment Plant, Springfield, Missouri <b>Final Report Title:</b> Southwest Wastewater Treatment Plant Influent flow Forecasting	<b>Justin Hoffmeier</b> , <i>Northwest Missouri State University</i> <b>Industrial Partner:</b> Pro Football Focus <b>Final Report Title:</b> NWMSU Collaboration with Pro Football Focus	<b>Hasala Gatilolu Kankanamalage</b> , <i>Roger Williams University</i> <b>Industrial Partner:</b> Center for Accelerator Science, Old Dominion University and Thomas Jefferson National Accelerator Facility <b>Final Report Title:</b> Determination of Actual Surface Resistance by Experimental Surface Resistance of Superconductors
<b>Zeynep Teymuroglu</b> , <i>Rollins College</i> <b>Industrial Partner:</b> Broadview Analytics <b>Final Report Title:</b> Marketing Textbooks	<b>Ranjan Rohatgi</b> , <i>Saint Mary's College</i> <b>Industrial Partner:</b> St. Joseph County Department of Health <b>Final Report Title:</b> Radon: Through the Cracks	<b>Colton Sawyer</b> , <i>Southern New Hampshire University</i> <b>Industrial Partner:</b> Procter and Gamble <b>Final Report Title:</b> Linear Programming as a Comparative Modeling Technique: Impacts of Natural Gas Shortages
<b>Natalie Hobson</b> , <i>South Puget Sound Community College</i> <b>Industrial Partner:</b> Allied Health and Nursing at SPSCC <b>Final Report Title:</b> Connecting Nursing Student Program Success with NCLEX Proficiency	<b>Lan Cheng</b> , <i>SUNY Fredonia</i> <b>Industrial Partner:</b> James Livsey <b>Final Report Title:</b> Adjustments Made Easy: A Look at Clustering Time Series from the US Census Bureau Manufacturers' Shipments, Inventories, and Orders	<b>Jennifer Royal</b> , <i>University of Georgia</i> <b>Industrial Partner:</b> Rubicon Crypto <b>Final Report Title:</b> Cryptocurrency Portfolio Design and Data Collection Techniques

<b>Fabio Vitor</b> , <i>University of Nebraska at Omaha</i>  <b>Industrial Partner:</b> Omaha Public Schools  <b>Final Report Title:</b> OPS Bus Scheduling: A Heuristic Approach to a 3-Tier Multi-Depot Vehicle Routing Problem with Inter-Depot Routes	<b>Jeremiah Bartz and Ryan Zerr</b> , <i>University of North Dakota</i>  <b>Industrial Partner:</b> City of Grand Forks, North Dakota  <b>Final Report Title:</b> A Case Study of the Belmont Corridor	<b>Wufeng Tian</b> , <i>University of Wisconsin-Eau Claire</i>  <b>Industrial Partner:</b> Rice Lake Weighing Systems, Barron County Economic Development Corporation  <b>Final Report Title:</b> Examining the Hiring Challenges and Labor Force Shortage in Barron County, WI
<b>Jon Beagley</b> , <i>Valparaiso University</i>  <b>Industrial Partner:</b> Opportunity Enterprises  <b>Final Report Title:</b> Sales Forecasting for Opportunity Enterprises	<b>Semere Gebresilasie</b> , <i>Wentworth Institute of Technology</i>  <b>Industrial Partner:</b> IntelyCare  <b>Final Report Title:</b> Predicting Shift Outcomes Using Machine Learning	<b>Alicia Prieto Langerica</b> , <i>Youngstown State University</i>  <b>Industrial Partner:</b> Econometrica Inc.  <b>Final Report Title:</b> Transparency Law Effects
<b>Jennifer Travis</b> , <i>Lone Star College-North Harris</i>  <b>Industrial Partner:</b> Gallery Furniture  <b>Final Report Title:</b> Analyzing the Relationship Between Online Coupon Form Submissions and Furniture Sales		

## 2019-2020 Cohort

<b>Treena Basu</b> , <i>Occidental College</i>  <b>Industrial Partner:</b> Adobe  <b>Final Report Title:</b> Optimized Conversion of Categorical and Numerical Features in Machine Learning Models	<b>Vindya Bhat</b> , <i>New York University</i>  <b>Industrial Partner:</b> Metropolitan Transit Authority - New York City Transit  <b>Final Report Title:</b> Automatic Task Assignment System for Bus Fare Evasion Data Collection	<b>Parshuram Budhathoki</b> , <i>Cameron University</i>  <b>Industrial Partner:</b> Lawton Fire Department  <b>Final Report Title:</b> Analyzing Emergency Medical Service Cost
<b>Joaquín Carbonara</b> , <i>SUNY Buffalo State</i>  <b>Industrial Partner:</b> Rich Products Corporation  <b>Final Report Title:</b> Analysis of transportation rates of new markets	<b>Vinodh Kumar Chellamuthum</b> , <i>Dixie State University</i>  <b>Industrial Partner:</b> Parks Data  <b>Final Report Title:</b> Trail Activity Prediction Model for Zion National Park	<b>Carey Childers</b> , <i>Clarion University</i>  <b>Industrial Partner:</b> Kronospan  <b>Final Report Title:</b> Kronospan - Minimum and Maximum Buys
<b>JaeYong Choi &amp; Leslie Aquino</b> , <i>University of Guam</i>  <b>Industrial Partner:</b> Guam Waterworks Authority  <b>Final Report Title:</b> An Analysis of the Fujita Pump Station	<b>Peter Connor</b> , <i>Indiana University South Bend</i>  <b>Industrial Partner:</b> Alpha Systems  <b>Final Report Title:</b> Optimizing production for a plastics manufacturer using linear programming	<b>Justin Dunmyre</b> , <i>Frostburg State University</i>  <b>Industrial Partner:</b> Mineral County Office of Emergency Services  <b>Final Report Title:</b> Redistricting Mineral County EMS Response Areas
<b>Bree Ettinger</b> , <i>Emory University</i>  <b>Industrial Partner:</b> Atlanta Beltline Inc.  <b>Final Report Title:</b> Safe Routes to School on the Atlanta BeltLine	<b>Semere Gebresilasie</b> , <i>Wentworth Institute of Technology</i>  <b>Industrial Partner:</b> IntelyCare  <b>Final Report Title:</b> IntelyCare Survival Analysis	<b>Robert Hesse</b> , <i>College of Saint Benedict/Saint John's University</i>  <b>Industrial Partner:</b> Nike  <b>Final Report Title:</b> A Statistical Analysis of Instagram Accounts
<b>Alona Kryshchenko</b> , <i>California State University Channel Islands</i>  <b>Industrial Partner:</b> Pacific Northwest National Laboratory  <b>Final Report Title:</b> Comparison of Reduced Order Models	<b>Michael Lamar</b> , <i>Centre College</i>  <b>Industrial Partner:</b> Wilderness Trail Distillery  <b>Final Report Title:</b> Wilderness Trail Report	<b>Eric Landquist</b> , <i>Kutztown University</i>  <b>Industrial Partner:</b> Borough of Kutztown Wastewater Treatment Plant  <b>Final Report Title:</b> Estimating the Cost of Inflow and Infiltration at the Borough of Kutztown Wastewater Treatment Plant
<b>Jingai Liang</b> , <i>Westminster College</i>  <b>Industrial Partner:</b> Great Salt Lake Institute  <b>Final Report Title:</b> Pelican Image Classification	<b>Kristin Lilly</b> , <i>Columbus State University</i>  <b>Industrial Partner:</b> Merrill Lynch  <b>Final Report Title:</b> Measuring Success of Financial Advisors	<b>Brice Merlin Nguellifack</b> , <i>United States Naval Academy</i>  <b>Industrial Partner:</b> New York Life Insurance, New York, NY  <b>Final Report Title:</b> Early Detection of Risk of Chronic Illness, their Relation to Smoking Status Using Machine Learning and Implications for Life and Health Insurance
<b>Thanh Nguyen</b> , <i>Rowan University</i>  <b>Industrial Partner:</b> TransDAC LLC: Intelligent Transportation System  <b>Final Report Title:</b> Identifying Road Anomalies using YOLO	<b>Frederick Park</b> , <i>Whittier College</i>  <b>Industrial Partner:</b> Qualcomm  <b>Final Report Title:</b> Clustering COVID-19 Lung Scans	<b>Terrance Pendleton</b> , <i>Drake University</i>  <b>Industrial Partner:</b> MidAmerican Energy  <b>Final Report Title:</b> Minimizing GCCA Vehicle Cost for MidAmerican Energy
<b>Virgil Pierce</b> , <i>University of Northern Colorado</i>  <b>Industrial Partner:</b> Town of Williston, Vermont (with a hat tip to Greenley, CO Weld County, CO, and the North Front Range MPO)  <b>Final Report Title:</b> The Effect of Zoning on Traffic	<b>Adriana Salerno</b> , <i>Bates College</i>  <b>Industrial Partner:</b> Tri-County Mental Health Services  <b>Final Report Title:</b> Expanding outreach for a Maine mental health services provider	<b>Widodo Samyono</b> , <i>Jarvis Christian College</i>  <b>Industrial Partner:</b> DEKA Research and Development  <b>Final Report Title:</b> Models of Cell Growth and Networking
<b>Becky Sanft</b> , <i>University of North Carolina, Asheville</i>  <b>Industrial Partner:</b> AMP-Conned LLC and FIRST at Blue Ridge Inc.  <b>Final Report Title:</b> Shuttle Routing Optimization	<b>Prasad Senesi</b> , <i>The Catholic University of America</i>  <b>Industrial Partner:</b> Howard County Bureau of Environmental Services  <b>Final Report Title:</b> Optimizing Waste Collection in Howard County using Mathematical Modeling Techniques	<b>Jason Smith</b> , <i>Graceland University</i>  <b>Industrial Partner:</b> SkillPath  <b>Final Report Title:</b> SkillPath Project
<b>Jessica Sorrells</b> , <i>Converse College</i>  <b>Industrial Partner:</b> Bank of America  <b>Final Report Title:</b> Credit Card Fraud Detection	<b>Kirsten Stor</b> , <i>Fort Lewis College</i>  <b>Industrial Partner:</b> Durango-La Pista County Airport  <b>Final Report Title:</b> Analysis of Local Airport's Current Parking Fee Structure and Possible Alternate Models	<b>Jeffery Sykes</b> , <i>Ouachita Baptist University</i>  <b>Industrial Partner:</b> Nevada National Security Site  <b>Final Report Title:</b> Flash X-Ray Machine Diagnostics
<b>Robert Thompson</b> , <i>Carleton College</i>  <b>Industrial Partner:</b> 3M Company	<b>Svetlana Tupova</b> , <i>Farmingdale State College</i>	<b>Jennifer Travis</b> , <i>Lone Star College, North Harris</i>

<b>Final Report Title:</b> Production Capacity at 3M: Simulated Supply-Chain Optimization	<b>Industrial Partner:</b> MU Anderson Cancer Center  <b>Final Report Title:</b> Toward Using Deep Learning to Detect and Monitor Hepatocellular Carcinoma	<b>Industrial Partner:</b> Houston Astros  <b>Final Report Title:</b> The Effect of Fan Promotions on Major League Baseball Attendance
<b>Thomas Wakefield,</b> Youngstown State University  <b>Industrial Partner:</b> Mahoning County Land Bank  <b>Final Report Title:</b> Spring 2020 Mahoning County Landbank Impact Measurement	<b>Crystal Wiggins,</b> Northwestern Connecticut Community College  <b>Industrial Partner:</b> HealthLynxIQ  <b>Final Report Title:</b> An Informative Approach to Target Population and Confirming the Market Segment of a Startup Company	<b>Justin Wright,</b> Plymouth State University  <b>Industrial Partner:</b> New Hampshire Environmental Public Health Tracking Program  <b>Final Report Title:</b> Environmental Public Health Tracking
<b>Xiaoxia Xie,</b> Idaho State University  <b>Industrial Partner:</b> Salesforce  <b>Final Report Title:</b> Skills Taxonomy	<b>Huijun Yi,</b> Troy University  <b>Industrial Partner:</b> Hodges Warehouse and Logistics (Hodges)  <b>Final Report Title:</b> Approach a VRP case with Google OR-Tools	<b>Patty Zabel,</b> Onondaga Community College  <b>Industrial Partner:</b> JOBSplus! and Onondaga Department of Social Services  <b>Final Report Title:</b> Investigating Recidivism Into Poverty for JOBSplus! of the Department of Social Services in Onondaga County

## 2018-2019 Cohort

<b>Roza Aceska and Yayuan Xiao,</b> Ball State University  <b>Industrial Partner:</b> Cummins Inc.  <b>Final Report Title:</b> Optimization Problem	<b>Leslie Aquino,</b> University of Guam  <b>Industrial Partner:</b> Duenas, Camacho & Associates, Inc.  <b>Final Report Title:</b> Modeling Expected Rainfall of Guam's Storm Return Periods	<b>Thomas Asaki,</b> Washington State University  <b>Industrial Partner:</b> Nez-Perce Clearwater National Forest Service  <b>Final Report Title:</b> An Application of Bayesian Analysis to the Stage Discharge Relation for the Nez Perce-Clearwater National Forest
<b>David Austin,</b> Grand Valley State University  <b>Industrial Partner:</b> City of Grand Rapids  <b>Final Report Title:</b> Keeping People in Their Homes	<b>Scott Bailey,</b> Clayton State University  <b>Industrial Partner:</b> Nevada National Security Site (NNSS)  <b>Final Report Title:</b> MULTIVARIATE ANALYSIS USING AUDIO RECOGNITION AND MACHINE LEARNING	<b>Tracy Bibelnicks,</b> University of Minnesota Duluth  <b>Final Report Title:</b> Hey Duluth, how ya doin'? A Data Analytics Approach to Determining Health and Economic Status of Communities with Duluth
<b>Esther Widiasih and Eric Wen,</b> University of Hawaii West Oahu  <b>Industrial Partners:</b> John A. Burns School of Medicine & Haseko  <b>Final Report Titles:</b> Single-Race Population Estimation Program & Modeling the Dynamics of the Population of a Species of Fish in a Pond	<b>Marko Budisic,</b> Clarkson University  <b>Final Report Title:</b> Hydroelectric Dam Power Generation Optimization	<b>Wesley Calvert,</b> Southern Illinois University, Carbondale  <b>Industrial Partner:</b> Ameren Illinois  <b>Final Report Title:</b> Data Driven Approach to Reliability
<b>Vinodh Kumar Chellamathu,</b> Dixie State University  <b>Industrial Partner:</b> Ralph's Transmission  <b>Final Report Title:</b> Strategic Marketing Analysis Using Mathematical Modeling to Understand Trends in Real Time Dataset	<b>Deirda Coleman,</b> Wofford College  <b>Industrial Partner:</b> Los Alamos National Laboratory  <b>Final Report Title:</b> A Zero-Inflated Poisson Regression Model of Zika Virus Cases Grouped by Location in Columbia	<b>Laura Croyle,</b> Baldwin Wallace University  <b>Industrial Partner:</b> Baldwin Wallace Chemistry Department  <b>Final Report Title:</b> OPTIMIZING THE BALDWIN WALLACE UNIVERSITY CHEMISTRY DEPARTMENT'S CHEMICAL SPENDING
<b>Kathryn Dobeck,</b> Lorain County Community College  <b>Industrial Partner:</b> Key Bank  <b>Final Report Title:</b> Histogram-Based Outlier Score: A Statistical Approach to Anomaly Detection	<b>Malena Espanol,</b> The University of Akron  <b>Industrial Partners:</b> ReWorks & CISCO  <b>Final Report Titles:</b> Contributions of Unregulated Compost Locations in Summit County & Fusion of TDOA-RSSI for robust indoor localization determination	<b>Haley Yaple,</b> Carthage College  <b>Industrial Partner:</b> IntelliScript  <b>Final Report Title:</b> PIC Math Final Paper
<b>Semere Gebresilasie,</b> Wentworth Institute of Technology  <b>Industrial Partner:</b> IntelyCane  <b>Final Report Title:</b> Survival Analysis for Fulfillment of Per Diem Nurse Shifts	<b>Nicholas Gewecke,</b> Dalton State College  <b>Industrial Partner:</b> Dalton Georgia Police Department  <b>Final Report Title:</b> Analyzing Motor Vehicle Collision Data in Dalton, GA from 2016 to 2018	<b>Ilija Jegdic,</b> Texas Southern University  <b>Industrial Partner:</b> Exxon Mobile  <b>Final Report Title:</b> Use of Buckley-Leverett Equation as a Tool in Reservoir Simulation
<b>Liang Kong,</b> University of Illinois at Springfield  <b>Industrial Partner:</b> DEKA Research and Development  <b>Final Report Title:</b> Evaluating Data for Glucose Monitoring Efficacy via ODES	<b>Eric Landquist,</b> Kutztown University  <b>Industrial Partner:</b> TerraForm Engineering  <b>Final Report Title:</b> A Lot From A Lot	<b>Isivan Lauko,</b> University of Wisconsin-Milwaukee  <b>Final Report Title:</b> Job Shop Scheduling Problem
<b>Frank Lynch and Andrew Oster,</b> Eastern Washington University  <b>Industrial Partner:</b> Stay Atfnd  <b>Final Report Title:</b> Revenue Maximization for a Hotel Business	<b>Heather Moon,</b> Lewis-Clark State College  <b>Industrial Partner:</b> Nez-Perce Clearwater National Forest Service  <b>Final Report Title:</b> Hydrologic Event Detection in the Nez Perce-Clearwater Area	<b>Thanh Nguyen,</b> Rowan University  <b>Industrial Partner:</b> Federal Aviation Administration  <b>Final Report Title:</b> Machine Learning for Reading Helicopter Digital Gauges
<b>Robert Nichel,</b> Fairmont State University  <b>Industrial Partner:</b> Mon Valley Habitat for Humanity  <b>Final Report Title:</b> Optimizing Low-income Home Loans	<b>Catie Patterson,</b> Austin College  <b>Industrial Partner:</b> Meals on Wheels of Tarrant County  <b>Final Report Title:</b> Funding Allocation Project	<b>Kendra Pleasant,</b> Morgan State University  <b>Final Report Title:</b> The End Game: An Analysis of Chess as an Introduction to Machine Learning
<b>Nathan Ryan,</b> Bucknell University  <b>Industrial Partners:</b> Greater Susquehanna Valley United Way (GSVUW), River Valley Transit (RVT), Susquehanna Economic Development Association Coalition of Governments (SEDA-COG)  <b>Final Report Title:</b> Data-informed recommendations for xed-route public transit in the Greater Susquehanna Valley	<b>Kathleen Ryan and Pranshu Gupta,</b> DeSales University  <b>Industrial Partner:</b> Lutron  <b>Final Report Title:</b> ENHANCING CALL CENTER SERVICE LEVELS	<b>Megan Sawyer,</b> Southern New Hampshire University  <b>Industrial Partner:</b> United States Environmental Protection Agency  <b>Final Report Title:</b> Dermal Absorption of Bromochloromethane with PBPK Modeling



<p><b>Tyler Skorzewski</b>, <i>University of Wisconsin-Stout</i></p> <p><b>Industrial Partner:</b> Mayo Clinic</p> <p><b>Final Report Title:</b> Using Discrete Event Simulations to Improve Pharmacy Operations</p>	<p><b>Jessica Stewart Kelly</b>, <i>Christopher Newport University</i></p> <p><b>Industrial Partner:</b> Newport News Fire Department</p> <p><b>Final Report Title:</b> Fire Department Group B: EMS</p>	<p><b>Haiyan Su</b>, <i>Montclair State University</i></p> <p><b>Industrial Partner:</b> Citigroup</p> <p><b>Final Report Title:</b> Finding nth Root of a Stochastic Matrix</p>
<p><b>Ross Sweet</b>, <i>Simpson College</i></p> <p><b>Industrial Partner:</b> Koppers, Inc.</p> <p><b>Final Report Title:</b> Minimizing the Risk of Stock-Out at Koppers, Inc.</p>	<p><b>Quan Tran</b>, <i>University of Science and Arts of Oklahoma</i></p> <p><b>Industrial Partner:</b> ONET</p> <p><b>Final Report Title:</b> Revolutionizing the Exploration of Careers Through Categorical Data Analysis</p>	<p><b>Anil Venkatesh</b>, <i>Ferris State University</i></p> <p><b>Industrial Partner:</b> SealAndAire Technologies</p> <p><b>Final Report Title:</b> Waveguide Calibration</p>
<p><b>Thomas Wakefield</b>, <i>Youngstown State University</i></p> <p><b>Industrial Partner:</b> City of Youngstown</p> <p><b>Final Report Title:</b> Snow Plow Routes in the City of Youngstown</p>		

## 2016-2017 Cohort

<p><b>Zachary Abernathy</b>, <i>Winthrop University</i></p> <p><b>Industrial Partner:</b> Kongregate</p> <p><b>Final Report Title:</b> Fraudulent Accounts of Kongregate</p>	<p><b>Donald Adongo</b>, <i>Murray State University</i></p> <p><b>Industrial Partner:</b> Pella Corporation</p> <p><b>Final Report Title:</b> Statistically Analyzing Assembly Line Processing Times through Incorporation of Product Variation</p>	<p><b>Leon Arriola</b>, <i>University of Wisconsin, Whitewater</i></p> <p><b>Industrial Partner:</b> Kerry Group</p> <p><b>Final Report Title:</b> A Non-linear Approach to Modeling Quantity and Price Elasticity of Demand and Other Tangential Results</p>
<p><b>Jeffrey Barton</b>, <i>Birmingham-Southern College</i></p> <p><b>Industrial Partner:</b> Southern Company</p> <p><b>Final Report Title:</b> Southern Company Auction Clearing Price Algorithm</p>	<p><b>Treena Basu</b>, <i>Occidental College</i></p> <p><b>Industrial Partner:</b> Ingram Micro, Inc.</p> <p><b>Final Report Title:</b> Exploring Seasonal Technology Sales Trends by Product</p>	<p><b>Mihail Berezovski</b>, <i>Embry-Riddle Aeronautical University</i></p> <p><b>Industrial Partner:</b> National Security Technologies</p> <p><b>Final Report Title:</b> Mie Scattering Diagnostic</p>
<p><b>Tracy Bibelsieks</b>, <i>University of Minnesota, Duluth</i></p> <p><b>Industrial Partner:</b> Fastenal</p> <p><b>Final Report Title:</b> A Novel Approach to Identification of Inventory Redistribution Opportunities for an Industrial Manufacturing Supplier</p>	<p><b>Keith Brandt</b>, <i>Rockhurst University</i></p> <p><b>Industrial Partner:</b> VeriShip</p> <p><b>Final Report Title:</b> How Weather Patterns Affect next-Day Shipments</p>	<p><b>Song Chen</b>, <i>University of Wisconsin, La Crosse</i></p> <p><b>Industrial Partner:</b> Fastenal</p> <p><b>Final Report Title:</b> Profit Optimization</p>
<p><b>Steve Cohen</b>, <i>Roosevelt University</i></p> <p><b>Industrial Partner:</b> Field Museum of Chicago</p> <p><b>Final Report Title:</b> The Connecting Collections: A Microplants Project</p>	<p><b>Edwin Ding</b>, <i>Azusa Pacific University</i></p> <p><b>Industrial Partner:</b> Los Alamos National Laboratory</p> <p><b>Final Report Title:</b> Retrospective Modeling and Early Detection of the Growth of Zika Virus in Colombia Using Google Trends Search Data</p>	<p><b>Michael Dobranski</b>, <i>Morehead State University</i></p> <p><b>Industrial Partner:</b> United Parcel Service</p> <p><b>Final Report Title:</b> UPS Optimization Problem</p>
<p><b>Heather Dye</b>, <i>McKendree University</i></p> <p><b>Industrial Partner:</b> Girl Scouts of Southern Illinois</p> <p><b>Final Report Title:</b> Analysis of the Effectiveness of Cookie Incentives</p>	<p><b>Julia Eaton</b>, <i>University of Washington, Tacoma</i></p> <p><b>Industrial Partner:</b> Lenati</p> <p><b>Final Report Title:</b> Predicting Customer Insurance Type</p>	<p><b>Joseph Eichholz, Christina Selby</b>, <i>Rose-Hulman Institute of Technology</i></p> <p><b>Industrial Partner:</b> 84.51</p> <p><b>Final Report Title:</b> Effect of Direct Marketing on Customer Engagement</p>
<p><b>Robert Ellis</b>, <i>Illinois Institute of Technology</i></p> <p><b>Industrial Partner:</b> Illinois College of Optometry</p> <p><b>Final Report Title:</b> Analysis of Diabetic Retinopathy Risk Factors and Prevalence in the Chicagoland Area</p>	<p><b>Katie Evans</b>, <i>Louisiana Tech University</i></p> <p><b>Industrial Partner:</b> Ruston Office of Development</p> <p><b>Final Report Title:</b> Building Efficiency Renovations to the Old Post Office</p>	<p><b>Guihong Fan, Ben Kamau, Nehal Shukla</b>, <i>Columbus State University</i></p> <p><b>Industrial Partner:</b> Starrett-Bytewise Measurement Systems</p> <p><b>Final Report Title:</b> Fitting a circular arc to the curved corner of a two-dimensional Profile composed of data points</p>
<p><b>Elin Farnell</b>, <i>Kernyon College</i></p> <p><b>Industrial Partner:</b> Knox Area Transit</p> <p><b>Final Report Title:</b> Rural Fixed-Route Public Transit</p>	<p><b>Bryan Faulkner</b>, <i>Ferrum College</i></p> <p><b>Industrial Partner:</b> PolymerSolutions</p> <p><b>Final Report Title:</b> Polymer Solutions' Client Data</p>	<p><b>Thomas Fitzkee</b>, <i>Francis Marion University</i></p> <p><b>Industrial Partner:</b> MITRE</p> <p><b>Final Report Title:</b> MITRE Hiring Process</p>
<p><b>Ben Galluzzo</b>, <i>Shippensburg University</i></p> <p><b>Final Report Title:</b> Assembly Line Efficiency at a Large Manufacturing Plant</p>	<p><b>Ira Gerhardt</b>, <i>Manhattan College</i></p> <p><b>Industrial Partner:</b> New York New Jersey Trail Conference</p> <p><b>Final Report Title:</b> Treatments of Invasive Plant Species in the Lower Hudson Valley</p>	<p><b>Brian Halle</b>, <i>Northwest Missouri State University</i></p> <p><b>Industrial Partner:</b> Nodaway County Economic Development</p> <p><b>Final Report Title:</b> Nodaway County Economic Development Project</p>
<p><b>Edwin Herman</b>, <i>University of Wisconsin, Stevens Point</i></p> <p><b>Industrial Partner:</b> Advanced Fabric Company</p> <p><b>Final Report Title:</b> Forming Fabric Analysis</p>	<p><b>Lisa Holden, Dhanuja Kasturiratna</b>, <i>Northern Kentucky University</i></p> <p><b>Industrial Partner:</b> American Modern Insurance Group</p> <p><b>Final Report Title:</b> Ensuring the Insurer: A Modern Statistical Approach to Estimating Unpaid Losses</p>	<p><b>Debra Hydorn</b>, <i>University of Mary Washington</i></p> <p><b>Industrial Partner:</b> Naval Surface Warfare Center, Dahlgren Division</p> <p><b>Final Report Title:</b> Network Analysis: Determining Nodes of Interest</p>
<p><b>Silvia Jimenez Bolanos</b>, <i>Colgate University</i></p> <p><b>Industrial Partner:</b> DEKA Research and Development</p> <p><b>Final Report Title:</b> Voronoi Modeling of Tissue Structure and Cell Regeneration</p>	<p><b>Michele Joyner</b>, <i>East Tennessee State University</i></p> <p><b>Industrial Partner:</b> Chick-fil-A Corporation</p> <p><b>Final Report Title:</b> Classification of Yelp Reviews and Their Star Rating Using Machine Learning Techniques</p>	<p><b>Emek Kose, Casey Douglas</b>, <i>St. Mary's College of Maryland</i></p> <p><b>Industrial Partner:</b> University of Maryland Chesapeake Biological Laboratory</p> <p><b>Final Report Title:</b> Creating Fish Communities Based on Stomach Content</p>
<p><b>Eric Landquist</b>, <i>Kutztown University</i></p> <p><b>Industrial Partner:</b> Borough of Kutztown Wastewater Treatment Plant</p> <p><b>Final Report Title:</b> Tame the Flame: Utilizing Methane in Wastewater Treatment</p>	<p><b>Kristin Lassonde</b>, <i>Contra Costa College</i></p> <p><b>Final Report Title:</b> Data Analysis: A Global Shipping Network</p>	<p><b>Namyong Lee</b>, <i>Minnesota State University, Mankato</i></p> <p><b>Industrial Partner:</b> Minnesota State University, Mankato Department of Dental Hygiene</p> <p><b>Final Report Title:</b> Dynamic Monitoring of Dental Hygiene Instrument</p>



<b>Alhua Li, Montclair State University</b>  <b>Industrial Partner:</b> Cilogroup  <b>Final Report Title:</b> Search for Nearest Correlation Matrices for Calculating Value at Risk	<b>Yongjin Lu, Virginia State University</b>  <b>Industrial Partner:</b> Revon Systems, Inc  <b>Final Report Title:</b> Predicting Triage for Chronic Obstructive Pulmonary Disease (COPD) Patients	<b>Qinghua Luo, Marian University</b>  <b>Industrial Partner:</b> Doit & Association  <b>Final Report Title:</b> Data Analysis on Autism Spectrum Rating Scale of Clinical Data
<b>Colton Magnant, Georgia Southern University</b>  <b>Industrial Partner:</b> Herty Advanced Materials Development Center  <b>Final Report Title:</b> Fiber Simulation for Noneovens	<b>Crepin Mahop, Howard University</b>  <b>Industrial Partner:</b> US Census Bureau  <b>Final Report Title:</b> Classifying Queries Based on the North American Product Classification System (NAPCS)	<b>Bori Mazzag, Humboldt State University</b>  <b>Industrial Partner:</b> GHD Consulting  <b>Final Report Title:</b> Analysis of Water Velocities at Schneider Dock
<b>Debra Mimbs, Lee University</b>  <b>Industrial Partner:</b> Good Grit  <b>Final Report Title:</b> Data-Driven Decisions: Maximizing Profit for Good Grit Magazine	<b>Mike Nicholas, Colorado School of Mines</b>  <b>Industrial Partner:</b> Colorado School of Mines Registrar's Office  <b>Final Report Title:</b> A Genetic Algorithm for Final Exam Scheduling	<b>Hyunju Oh, Bennett College</b>  <b>Industrial Partner:</b> Greensboro Police Department  <b>Final Report Title:</b> Comparison of Bias in the Greensboro Police Department After Policy Changes
<b>Michael Prophet, University of Northern Iowa</b>  <b>Industrial Partner:</b> HyVee Spirits  <b>Final Report Title:</b> Optimal Pricing for Promoted Spirits	<b>Uma Ravat, University of Illinois at Urbana-Champaign</b>  <b>Industrial Partner:</b> AXIS Capital  <b>Final Report Title:</b> Predicting Loss Ratios	<b>Aubrey Rhoden, Texas A&amp;M - Corpus Christie</b>  <b>Industrial Partner:</b> Texas Parks and Wildlife Fish Hatchery Department  <b>Final Report Title:</b> Fish Hatchery Project
<b>Stacey Rodman, Augustana College</b>  <b>Industrial Partner:</b> Genesis Medical Center  <b>Final Report Title:</b> Utilization and Scheduling Problem: Final Report to Genesis	<b>Jan Rychtar, University of North Carolina, Greensboro</b>  <b>Industrial Partner:</b> Greensboro Police Department  <b>Final Report Title:</b> Analysis of Racial bias within the Greensboro Police Department after an Undisclosed Policy Change in June 2016	<b>Jason Schmurr, Dalton State College</b>  <b>Industrial Partner:</b> Shaw Industries  <b>Final Report Title:</b> Optimizing the Cut Bill
<b>Zhiheng Shuai, University of Central Florida</b>  <b>Industrial Partner:</b> Ministry of Public Health and Population, Republic of Haiti  <b>Final Report Title:</b> Modeling Cholera Dynamics in Haiti: The Effects of Interventions on Reducing Epidemic Outbreaks	<b>Tyler Skorzewski, Cornell College</b>  <b>Industrial Partner:</b> Kimberly-Clark Corporation  <b>Final Report Title:</b> Analyzing Packaging Network Efficiency	<b>Laura Smith, California State University, Fullerton</b>  <b>Industrial Partner:</b> Southern California Coastal Water Research Project  <b>Final Report Title:</b> Quantifying Pollutant Mass in the Southern California Bight
<b>Emma Smith Zbarkay, Wentworth Institute of Technology</b>  <b>Industrial Partner:</b> Applied Geographics, Inc  <b>Final Report Title:</b> Shrink Wrapping Project: Geospatial Information Technology	<b>Gwen Spencer, Smith College</b>  <b>Industrial Partner:</b> Cooley-Dickinson Hospital  <b>Final Report Title:</b> Modeling Delays in Healthcare Scheduling	<b>Ellen Swanson, Centre College</b>  <b>Industrial Partner:</b> Kentucky Department of Energy Development and Independence  <b>Final Report Title:</b> Predicting Solar Growth in Kentucky
<b>Robert Thompson, Carleton College</b>  <b>Industrial Partner:</b> Carlson Capital Management  <b>Final Report Title:</b> Opportunistic Rebalancing	<b>Quan Tran, University of Science and Arts of Oklahoma</b>  <b>Industrial Partner:</b> Weather Decision Technologies, Inc.  <b>Final Report Title:</b> Resolving Differences in Data Between Satellite and Rain Gauges for more Accurate Rainfall Estimations	<b>Necibe Tuncer, Florida Atlantic University</b>  <b>Industrial Partner:</b> Moffitt Cancer Research Center  <b>Final Report Title:</b> A Mathematical Model based on IC50 Curves to Predict Tumor Responses to Drugs
<b>R.N. Uma, North Carolina Central University</b>  <b>Industrial Partner:</b> OuEST Engineering Services and Testing, Inc.  <b>Final Report Title:</b> Spring Constant of Cast-in-Place Piles	<b>Michael Veatch, Gordon College</b>  <b>Industrial Partner:</b> Gordon College Registrar's Office  <b>Final Report Title:</b> Expediting the Classroom Assignment Problem at Gordon College	<b>Tom Wakefield, Youngstown State University</b>  <b>Industrial Partner:</b> Mercy Health  <b>Final Report Title:</b> Analyzing New Health Care Placement of Mercy Health Facilities
<b>Shirley Yap, California State University, East Bay</b>  <b>Industrial Partner:</b> First Rain Corporation  <b>Final Report Title:</b> Comparison of Embedding Space Dimensions, Corpus Size, and other Variables in Word to Vector Models	<b>Ping Ye, University of North Georgia</b>  <b>Industrial Partner:</b> Boy with a Ball  <b>Final Report Title:</b> A Measurement of the Success of Boy with a Ball	<b>Debbie Yuster, SUNY Maritime College</b>  <b>Final Report Title:</b> Testing the Performance of Name-Matching Algorithms

## 2015-2016 Cohort

<b>Zachary Abernathy, Winthrop University</b>  <b>Industrial Partner:</b> RavenFlo  <b>Final Report Title:</b> Variable Rate Pricing in Website Design	<b>Crista Arangala, Elon University</b>  <b>Industrial Partner:</b> National Security Technologies  <b>Final Report Title:</b> X-Ray Imaging Performance Analysis	<b>Mariah Birgen, Wartburg College</b>  <b>Industrial Partner:</b> Blum Bros. Distilling Co.  <b>Final Report Title:</b> Whiskey Evaporation Model
<b>Keith Brandt, Rockhurst University</b>  <b>Industrial Partner:</b> City of Kansas City, MO  <b>Final Report Title:</b> Optimizing Housing City Inspection Activities with Kansas City Government	<b>Ron Buckmire, Occidental College</b>  <b>Industrial Partner:</b> DEKA Research Development  <b>Final Report Title:</b> The Robotic Arm	<b>Hannah Callendar, University of Portland</b>  <b>Industrial Partner:</b> Los Alamos National Laboratory  <b>Final Report Title:</b> Minimizing Antibiotic Resistance in the Treatment of Non-Typhoidal Salmonella in Siaya, Kenya
<b>Chris Camfield, Hendrix College</b>  <b>Industrial Partner:</b> Hendrix Office of Advancement  <b>Final Report Title:</b> Event Effectiveness at Hendrix College	<b>Vani Cheruvu, University of Toledo</b>  <b>Industrial Partner:</b> Lockheed Martin  <b>Final Report Title:</b> Fixed Points and Feedback Control for Ground Vehicle Dynamics	<b>Steve Chung, California State University, Fresno</b>  <b>Industrial Partner:</b> Community Regional Medical Center  <b>Final Report Title:</b> Investigating the Single Dosage of Curosurf for the Treatment of Neonatal Respiratory Distress Syndrome
<b>Steve Cohen, Roosevelt University</b>	<b>Christopher Curtis, San Diego</b>	<b>Melody Denhere, University of Mary Washington</b>

<p><b>Industrial Partner:</b> Field Museum of Chicago</p> <p><b>Final Report Title:</b> Considering the Effective Use of Crowdsourcing in Microplant Measurements</p>	<p><i>State University</i></p> <p><b>Industrial Partner:</b> Leidos</p> <p><b>Final Report Title:</b> Digital Image Forgery Detection</p>	<p><b>Industrial Partner:</b> Naval Surface Warfare Center</p> <p><b>Final Report Title:</b> Language Recognition with N-Grams</p>
<p><i>Melissa Dennison, Baldwin Wallace University</i></p> <p><b>Industrial Partner:</b> Beres City School District</p> <p><b>Final Report Title:</b> School Bus Route Optimization</p>	<p><b>Michael Dobranski, Morehead State University</b></p> <p><b>Industrial Partner:</b> Daniel Boone National Forest Service</p> <p><b>Final Report Title:</b> Bird Population Analysis</p>	<p><i>Elin Farnell, Kenyon College</i></p> <p><b>Industrial Partner:</b> Sproxi!, Inc.</p> <p><b>Final Report Title:</b> Machine Learning Techniques for SMS Classification</p>
<p><b>Ben Galluzzo, Shippensburg University</b></p> <p><b>Final Report Title:</b> Disparities in School District Funding in Pennsylvania</p>	<p><b>Yousuf George, Nazareth College</b></p> <p><b>Industrial Partner:</b> New York State Education Department</p> <p><b>Final Report Title:</b> Injustice within the School System</p>	<p><b>Ira Gerhardt, Manhattan College</b></p> <p><b>Industrial Partner:</b> Animal Care Center of NYC</p> <p><b>Final Report Title:</b> Socioeconomic Patterns in Surrender Demographics for the Animal Care Centers of NYC</p>
<p><i>Jason Graham, University of Scranton</i></p> <p><b>Industrial Partner:</b> DEKA Research and Development</p> <p><b>Final Report Title:</b> Failure Rate Behavior for Products for Company Reliability, Customer Satisfaction, and Profitability</p>	<p><b>Michele Joyner, East Tennessee State University</b></p> <p><b>Industrial Partner:</b> Global Acetyls, Inc. Company: Eastman Chemical Company</p> <p><b>Final Report Title:</b> Optimize the Chemical Supply Chain</p>	<p><b>Hyejin Kim, Yulia Hristova, Mahesh Agarwal, University of Michigan, Dearborn</b></p> <p><b>Industrial Partner:</b> Texas Children's Hospital</p> <p><b>Final Report Title:</b> Frequency Response of Blood Flow Regulation</p>
<p><i>Dominic Klywe, Central Washington University</i></p> <p><b>Industrial Partner:</b> Central Washington University</p> <p><b>Final Report Title:</b> Tuition Waivers at CWU</p>	<p><b>Sean Laverty, University of Central Oklahoma</b></p> <p><b>Industrial Partner:</b> Centers for Disease Control and Prevention</p> <p><b>Final Report Title:</b> Population Dynamics of the Egyptian Fruit Bat to understand Marburg Virus in Humans</p>	<p><b>Hong Liu, Embry-Riddle Aeronautical University</b></p> <p><b>Industrial Partner:</b> Marine Science Center at Volusia County</p> <p><b>Final Report Title:</b> Data Mining: Volusia County Reef Health Classification - Protect Natural Environment</p>
<p><b>Erik Lundberg, Florida Atlantic University</b></p> <p><b>Industrial Partner:</b> Oak Ridge National Laboratory</p> <p><b>Final Report Title:</b> Feature Selection in High-Dimensional Dataset using Small Sample Size</p>	<p><b>Frank Lynch, Andrew Oster, Eastern Washington University</b></p> <p><b>Industrial Partner:</b> Avista Utilities</p> <p><b>Final Report Title:</b> Most Efficient Strategy to Operate a Hydropower</p>	<p><b>Colton Magnant, Georgia Southern University</b></p> <p><b>Industrial Partner:</b> Boys and Girls of Bulloch County</p> <p><b>Final Report Title:</b> Establishing a Return Investment of the Services Provided by the Boys and Girls Club</p>
<p><b>Debra Mimbs, Lee University</b></p> <p><b>Industrial Partner:</b> National Security Technologies</p> <p><b>Final Report Title:</b> Calibrations of a Broadband Laser Ranging Diagnostic</p>	<p><b>Matthew Neal, Denison University</b></p> <p><b>Industrial Partner:</b> AIG Insurance</p> <p><b>Final Report Title:</b> Impact of Geographic Region on Auto Insurance Premiums</p>	<p><b>Mike Nicholas, Colorado School of Mines</b></p> <p><b>Industrial Partner:</b> United States Naval Academy</p> <p><b>Final Report Title:</b> Search Algorithms for Minimum Peak Sidelobe Level Codes</p>
<p><b>Hyunju Oh, Bennett College</b></p> <p><b>Industrial Partner:</b> Greensboro Police Department</p> <p><b>Final Report Title:</b> Assessment of Greensboro, NC Police Department's Racial Biases in Post-Stop Outcomes</p>	<p><b>Dale Peterson, United States Air Force Academy</b></p> <p><b>Industrial Partner:</b> Air Force Space Command</p> <p><b>Final Report Title:</b> Use of a Genetic Algorithm to Optimize Satellite Position in the Global Positioning System</p>	<p><b>Michael Prophet, University of Northern Iowa</b></p> <p><b>Industrial Partner:</b> Shorts Travel Management, Inc.</p> <p><b>Final Report Title:</b> Manage the Schedule and Maximize Profit by Utilizing Planes to the Highest Efficiency</p>
<p><b>Uma Ravat, University of Illinois at Urbana-Champaign</b></p> <p><b>Industrial Partner:</b> Rithmio</p> <p><b>Final Report Title:</b> Machine Learning for Human Activity Recognition</p>	<p><b>Aubrey Rhoden, Texas A&amp;M, Corpus Christie</b></p> <p><b>Industrial Partner:</b> Plasma Engineering Research Lab</p> <p><b>Final Report Title:</b> Modeling the Evolution of Laser-Induced Plasma in Ambient Air</p>	<p><b>Jan Rychtar, University of North Carolina, Greensboro</b></p> <p><b>Industrial Partner:</b> Greensboro Police Department</p> <p><b>Final Report Title:</b> Racial Bias in Individual Officers</p>
<p><b>Samuel Schmidt, Winona State University</b></p> <p><b>Final Report Title:</b> Customer Segmentation using Cluster Analysis - Distribution Effectiveness</p>	<p><b>Mike Schroeder, Marshall University</b></p> <p><b>Industrial Partner:</b> Huntington Police Department</p> <p><b>Final Report Title:</b> Patrol Zone Realignment for Higher Effectiveness</p>	<p><b>Christina Selby, Joseph Eichholz, Rose-Hulman Institute of Technology</b></p> <p><b>Industrial Partner:</b> Crane Payment Innovations</p> <p><b>Final Report Title:</b> Alternative Methods of Wavefront Coding to be more Cost Efficient</p>
<p><b>Laura Smith, California State University, Fullerton</b></p> <p><b>Industrial Partner:</b> RAND Corporation</p> <p><b>Final Report Title:</b> Self-Exciting Point Process Models for Political Conflict Forecasting</p>	<p><b>Emma Smith Zbarsky, Wentworth Institute of Technology</b></p> <p><b>Industrial Partner:</b> Applied Geographics</p> <p><b>Final Report Title:</b> Catenary Alpha Shapes for Geographic Data</p>	<p><b>Jillian Stupianski, Lee Raney, University of North Alabama</b></p> <p><b>Industrial Partner:</b> Los Alamos National Laboratory</p> <p><b>Final Report Title:</b> Forecasting Zika Virus Disease in Brazil</p>
<p><b>Narayan Thapa, Cameron University</b></p> <p><b>Final Report Title:</b> Diffusion, Advection, and Reaction Model for Drug Distribution in Moving Biofluids</p>	<p><b>David Torsin, Hampton University</b></p> <p><b>Final Report Title:</b> Signal Denoising Using Weibull Distribution</p>	<p><b>Quan Tran, University of Science and Arts of Oklahoma</b></p> <p><b>Industrial Partner:</b> US Water Utility Group</p> <p><b>Final Report Title:</b> Determining the Impurities in Groundwater</p>
<p><b>Tom Wakefield, Youngstown State University</b></p> <p><b>Industrial Partner:</b> Youngstown Neighborhood Development Corporation</p> <p><b>Final Report Title:</b> Analyzing Historic Crime and Neighborhood Stabilization</p>	<p><b>Jeff Wheeler, University of Pittsburgh</b></p> <p><b>Final Report Title:</b> Predicting MLB Success and the Use of Sabremetrics</p>	<p><b>Keith Wojciechowski, University of Wisconsin, Stout</b></p> <p><b>Industrial Partner:</b> Fastenal</p> <p><b>Final Report Title:</b> Effective School Scheduling for Fastenal School of Business</p>
<p><b>Zhifu Xie, Virginia State University</b></p>	<p><b>Industrial Partner:</b> I I R, Nauv's Strategin</p>	

**Final Report Title:** Determining a High-Level Radioactive Waste Repository Location in the US

## 2014-2015 Cohort

<p><b>Kristen Abernathy</b>, Winthrop University</p> <p><b>Industrial Partner:</b> Level Up Labs</p> <p><b>Final Report Title:</b> Fusion in Card Collecting Games: A Probable Outcome</p>	<p><b>Cesar Aguilar</b>, California State University, Bakersfield</p> <p><b>Industrial Partner:</b> DEKA Research and Development</p> <p><b>Final Report Title:</b> Boundary Point Detection from Noisy Tomographic Data</p>	<p><b>Tracy Bibelnicks</b>, University of Minnesota, Duluth</p> <p><b>Industrial Partner:</b> Numerica Corporation</p> <p><b>Final Report Title:</b> Design of a Discrete Event Simulation for High Priority 911 Service Calls</p>
<p><b>Ron Buckmire</b>, Occidental College</p> <p><b>Industrial Partner:</b> BeastScore</p> <p><b>Final Report Title:</b> A Logistic Formula for Predicting Performance</p>	<p><b>Steve Cohen</b>, Roosevelt University</p> <p><b>Industrial Partner:</b> The Field Museum of Chicago</p> <p><b>Final Report Title:</b> Forays into Citizen Science: A Multimethodological Approach to Measuring Accuracy of User-Generated Scientific Data</p>	<p><b>Robert Ellis</b>, Illinois Institute of Technology</p> <p><b>Industrial Partner:</b> Los Alamos National Lab</p> <p><b>Final Report Title:</b> Application of the SEIR Model and the CFLP Algorithm to the Placement of Ebola Treatment Centers in Liberia</p>
<p><b>Elin Farnell</b>, Kyrion College</p> <p><b>Industrial Partner:</b> Sproil, Inc.</p> <p><b>Final Report Title:</b> Modeling Shelf Lives of Products</p>	<p><b>Renee Flster, Donald Adongo</b>, Murray State University</p> <p><b>Industrial Partner:</b> Briggs and Stratton</p> <p><b>Final Report Title:</b> Development of Mathematical Models for Industrial Lighting System Costs with Applications in Constrained System Optimization</p>	<p><b>Javier Garza</b>, Tarleton State University</p> <p><b>Industrial Partner:</b> Tarleton State University</p> <p><b>Final Report Title:</b> Predictive Enrollment Modeling Using Random Forest</p>
<p><b>Yulia Hristova, Hyejin Kim</b>, University of Michigan, Dearborn</p> <p><b>Industrial Partner:</b> Intel Corporation</p> <p><b>Final Report Title:</b> Quantifying the Risks of Solar Power</p>	<p><b>Aprilia Lanz</b>, Norfolk State University</p> <p><b>Industrial Partner:</b> Los Alamos National Lab</p> <p><b>Final Report Title:</b> Transmission Dynamics of the Recent Ebola Epidemics in West Africa</p>	<p><b>Frank Lynch</b>, Eastern Washington University</p> <p><b>Industrial Partner:</b> Avista Utilities</p> <p><b>Final Report Title:</b> Optimization of a Hydropwer Station</p>
<p><b>Myunghyun Oh</b>, University of Kansas</p> <p><b>Industrial Partner:</b> DEKA Research and Development</p> <p><b>Final Report Title:</b> The Motion of the Robot Controlled by Altering the Relative Length of Two Guide Elements</p>	<p><b>Stephen Pankavich</b>, Colorado School of Mines</p> <p><b>Industrial Partner:</b> Los Alamos National Lab</p> <p><b>Final Report Title:</b> A Modified SEIR Model for the Spread of Ebola in West Africa</p>	<p><b>Dale Peterson</b>, United States Air Force Academy</p> <p><b>Industrial Partner:</b> United States Air Force Space Command</p> <p><b>Final Report Title:</b> Chebyshev Missile Trajectory Tool</p>
<p><b>Kevin Pilgrim</b>, Indiana University</p> <p><b>Industrial Partner:</b> DEKA Research and Development</p> <p><b>Final Report Title:</b> Run-time and Security Analysis of Diffie-Hellman Public Key Encryption in an Industrial Setting</p>	<p><b>Samuel Schmidt</b>, Winona State University</p> <p><b>Industrial Partner:</b> National Security Technologies</p> <p><b>Final Report Title:</b> Flash X-Ray Machine Diagnostics</p>	<p><b>Bernd Schroeder</b>, University of Southern Mississippi</p> <p><b>Industrial Partner:</b> Intel Corporation</p> <p><b>Final Report Title:</b> Analysis of Solar Radiation Data from AZMET Station, 1, 2, 4, 5, 6, 7, 8</p>
<p><b>Michael Schroeder</b>, Marshall University</p> <p><b>Industrial Partner:</b> Neptune and Company, Inc.</p> <p><b>Final Report Title:</b> Why not Substitute? A Simulation Study of Left-Censored Data</p>	<p><b>Laura Smith</b>, California State University, Fullerton</p> <p><b>Industrial Partner:</b> RAND Corporation</p> <p><b>Final Report Title:</b> Identifying Gender Mismatch between Social Media Users and the U.S. Population</p>	<p><b>Emma Smith Zbarsky</b>, Wentworth Institute of Technology</p> <p><b>Industrial Partner:</b> DEKA Research and Development</p> <p><b>Final Report Title:</b> Tomographic Image Processing</p>
<p><b>Nessy Tania</b>, Smith College</p> <p><b>Industrial Partner:</b> Bell Labs</p> <p><b>Final Report Title:</b> Modeling Internet Traffic Generation for Telecommunication Applications</p>	<p><b>Narayan Thapa</b>, Minot State University</p> <p><b>Industrial Partner:</b> Los Alamos National Lab</p> <p><b>Final Report Title:</b> Mathematical Modeling of the Ebola Outbreak and Treatment Facility Placement</p>	<p><b>David Torain</b>, Hampton University</p> <p><b>Final Report Title:</b> Hedging Strategy Analysis in Foreign Markets</p>
<p><b>Quan Tran</b>, University of Science and Arts of Oklahoma</p> <p><b>Industrial Partner:</b> DEKA Research and Development</p> <p><b>Final Report Title:</b> Determining the Volume of a Surface Defined by Tomographic Scattering Points</p>	<p><b>Amanda Tucker</b>, SUNY Genesee</p> <p><b>Industrial Partner:</b> Resource Refocus, LLC</p> <p><b>Final Report Title:</b> Typical Meteorological Year versus Actual Meteorological Year Weather Data: How Our Changing Climate Affects Energy Use Modeling for Residential Homes</p>	<p><b>Tom Wakefield</b>, Youngstown State University</p> <p><b>Industrial Partner:</b> Youngstown Police Department</p> <p><b>Final Report Title:</b> Redistricting Youngstown Police Beats</p>
<p><b>Jeff Wheeler</b>, University of Pittsburgh</p> <p><b>Industrial Partner:</b> United States Department of Transportation</p> <p><b>Final Report Title:</b> Forecasting Origin Ramp to Destination Ramp Pairs for Peak Shipping Period for a Major Global Courier Service Company</p>	<p><b>Zhifu Xie</b>, Virginia State University</p> <p><b>Industrial Partner:</b> Los Alamos National Lab</p> <p><b>Final Report Title:</b> The Mitigation of the Spread of Ebola Virus in West Africa</p>	

Support for this Program



Society for Industrial and Applied Mathematics

PIC Math is a program of the Mathematical Association of America (MAA) and the Society for Industrial and Applied Mathematics (SIAM). Support is provided by the National Science Foundation (NSF grant DMS-1722275).



#### ABOUT MAA

[MAA History](#)  
[MAA to the Power of New Governance](#)  
[Policies and Procedures](#)  
[Advocacy](#)  
[Our Partners](#)  
[Advertise with MAA](#)  
[Employment Opportunities](#)  
[Staff Directory](#)  
[Contact Us](#)  
[2022 Impact Report](#)  
[In Memoriam](#)

#### MEMBERSHIP

[Membership Categories](#)  
[Membership Renewal](#)  
[Member Discount Programs](#)  
[MAA Member Directories](#)  
[New Member Benefits](#)

#### MAA PUBLICATIONS

[Periodicals](#)  
[Blogs](#)  
[MAA Book Series](#)  
[MAA Press \(an imprint of the AMS\)](#)  
[MAA Notes](#)  
[MAA Reviews](#)  
[Mathematical Communication](#)  
[Information for Libraries](#)  
[Author Resources](#)  
[Advertise with MAA](#)

#### MEETINGS

[MAA MathFest](#)  
[Propose a Session](#)  
[MAA Section Meetings](#)  
[Virtual Programming](#)  
[Joint Mathematics Meetings](#)  
[Calendar of Events](#)  
[MathFest Archive](#)  
[MAA Code of Conduct](#)

#### COMPETITIONS

[About AMC](#)  
[Registration](#)  
[Getting Started with the AMC](#)  
[AMC Policies](#)  
[AMC Administration Policies](#)  
[Important AMC Dates](#)  
[Competition Locations](#)  
[AMC 8](#)  
[AMC 10/12](#)  
[Invitational Competitions](#)  
[Putnam Competition](#)  
[AMC International](#)  
[AMC Resources](#)  
[Statistics & Awards](#)

#### CONNECT WITH MAA



[Sign up for emails](#)



**MAA**

Mathematical Association of America

P: (800) 331-1622

F: (240) 396-5647

Email: [masservice@maa.org](mailto:masservice@maa.org)

Copyright © 2024

[Terms of Use](#)

[Privacy Policy](#)

[Mobile Version](#)

#### PROGRAMS

[Submit an NSF Proposal with MAA](#)  
[MAA Distinguished Lecture Series](#)  
[Curriculum Resources](#)  
[Outreach Initiatives](#)  
[Professional Development](#)  
[Virtual Programming](#)

#### COMMUNITIES

#### NEWS

[Our Blog](#)  
[MAA Social Media](#)  
[RSS](#)