



Portfolio Milestone

IST 782: APPLIED DATA SCIENCE PORTFOLIO

Cheromaine Smith | 866290307 | May 16, 2025

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Cheromainé Smith

Cortland, NY | 315.746.0536 | csmith27@oswego.edu | [Cheromaine Smith](#) | [LinkedIn](#)

Data-Driven Analyst | Results-Oriented Specialist | Strategic Project Coordinator

PROFESSIONAL SUMMARY

Detail-oriented Data Analyst with over 5 years of experience in technology, business operations, and higher education administration. Recently completed an M.S. in Applied Data Science, bringing a blend of technical and strategic capabilities to improve workflows, financial oversight, and system performance. As an Operations Specialist and former Functional Business Analyst, I streamline departmental processes, enhance decision-making with data-driven solutions, and coordinate complex projects. Proficient in SQL, Tableau, and Python, with a track record of leading cross-functional teams and improving institutional efficiency.

AREAS OF EXPERTISE

- ✓ Adaptability
- ✓ Business Process Improvement
- ✓ Budget & Financial Oversight
- ✓ Customer Service Excellence
- ✓ Data Analysis and Reporting
- ✓ Data Visualization
- ✓ Departmental Operations
- ✓ ERP System Implementation
- ✓ Event Planning
- ✓ Invoicing and Billing
- ✓ Leadership
- ✓ Personnel Management
- ✓ Process Documentation
- ✓ Project Management
- ✓ Recruitment
- ✓ Stakeholder Communication
- ✓ Strategic Planning
- ✓ Talent Management
- ✓ Team Collaboration
- ✓ Technical Support

CAREER HIGHLIGHTS

Comprehensive Reporting System Development: Collaborated on the creation and maintenance of over 150 reports and data sources, improving workforce visibility and streamlining operations across university departments. Utilized tools including SQL, Tableau, Python, Power BI, Azure, Access, and R Studio.

Transformative ERP Implementation: Successfully led testing and implementation of enterprise systems at Syracuse University, optimizing over 200 business processes and enhancing cross-departmental functionality.

Innovative Recruitment Strategies: Directed Syracuse University's first auxiliary services job fair, resulting in the hiring of 200+ staff. Developed internal dashboards and tools to track hiring metrics, increasing diversity and efficiency.

PROFESSIONAL EXPERIENCE

Operations Specialist I, Department of Mathematics, Syracuse University, Syracuse, NY | October 2024 – Present

Manage departmental operations, budgets, and staff oversight while ensuring compliance with university policies. Provide strategic support to the department Chair and serve as a cross-campus liaison to align academic and administrative priorities.

- Direct daily operations by supervising departmental staff, setting workflow priorities and resolving personnel issues to ensure a smooth-running academic unit.
- Oversee budget planning and reconciliation across multiple funding sources, making recommendations to the Chair to ensure compliance with financial policies.
- Act as hiring lead for faculty, staff, PTI and postdoc positions, managing search processes and maintaining personnel records in line with university procedures.
- Serve as a key liaison to the Dean's Office, Graduate School, and central administration, aligning departmental initiatives with institutional goals.
- Manage major projects including space planning, graduate orientation, and accreditation efforts, ensuring deadlines and standards were met.
- Monitor and report on faculty start-up budgets, scholarship credits, and financial aid to maintain transparency and accuracy.
- Coordinate maintenance and facilities logistics, submitting work orders to ensure resolution to keep department spaces operational.

Functional Business Analyst I, Human Resources, Syracuse University, Syracuse, NY | April 2023 – October 2024

Serve as a key liaison for testing and implementation of ERP systems, analyzing business requirements to create functional specifications. Manage application maintenance, coordinate security protocols for new employees, and develop data reports to enhance operational efficiency across the university.

- Serve as a primary liaison for ERP system testing, overseeing over 200 processes to ensure successful implementation.
- Analyze business requirements and convert them into detailed functional specifications for development teams, enhancing project clarity.
- Manage application maintenance by diagnosing errors and updating business specifications to optimize system performance.
- Lead security approval processes for over 1,000 new employees, ensuring compliance with HR protocols and policies.
- Develop and maintain a variety of comprehensive data reports to support both operational and ad-hoc reporting needs.
- Coordinate with cross-functional teams to design, test, and implement innovative solutions for business challenges.
- Facilitate training and documentation efforts to ensure seamless user adoption and understanding of new systems.

Talent Management Associate, Human Resources, Syracuse University, Syracuse, NY | August 2021 – April 2023

Managed recruitment reporting and organized talent acquisition events, successfully hiring over 2,000 employees' while enhancing data-driven decision-making through dashboard development and process improvements.

- Developed and analyzed recruitment reports to track metrics on diversity and employee eligibility, enhancing team insights.
- Organized the inaugural auxiliary services job fair, successfully hiring over 200 employees and streamlining the recruitment process.
- Designed and implemented an internal dashboard to measure recruitment methods, enabling data-driven decision-making for talent managers.
- Led the planning and execution of career fairs, contributing to the hiring of over 2,000 temporary employees across the university.
- Created the opening design for Syracuse University's first Virtual Career Fair, collaborating with state partners and attracting over 600 candidates.
- Trained over 50 colleagues on workflow processes and best practices, fostering a more efficient recruitment team.
- Provided technical assistance and support within the HR office, improving operations and resolving data-related issues.

Audit & Invoice Specialist, Robert Half Salaried Professional Services, Syracuse, NY | June 2019 – August 2021

Full-time employee contracted to various companies, where I specialized in auditing and invoicing. Conducted over 125 weekly audits for Protiviti and ensured billing accuracy for Arcadis, collaborating with project teams enhancing operational efficiency.

- Conducted over 125 weekly audits at Protiviti, ensuring the accuracy of internal calculations and claims.
- Collaborated with project managers at Arcadis to process invoices accurately and on time.
- Utilized IBM and BOTs to determine case dispositions, contributing to efficient case management.
- Trained team members on the effective use of auditing systems, enhancing team performance.
- Maintained billing accuracy by adjusting employee rates and approving contracts in Oracle Cloud.
- Compiled and organized receipts for invoicing periods, ensuring documentation integrity and compliance.
- Monitored project setups daily to ensure consistency across client portfolios, supporting operational goals.

Client Processing Representative, Bank of New York Mellon, East Syracuse, NY | June 2016 – June 2019

Collaborating with brokers and clients to enhance operational processes, which significantly improved efficiency and compliance within the trading environment.

- Monitored and amended over 1,000 trades daily, ensuring accurate settlement and minimizing operational crises.
- Collaborated with brokers, clients, and internal departments to address trading issues and improve efficiency.
- Developed and implemented a new procedure for collecting Broker Contact Information, enhancing operational workflow.
- Led the team in migrating multiple accounts to Brussels, overseeing VDS migration and tracking discrepancies.
- Organized and facilitated weekly meetings, creating schedules and distributing minutes to ensure clear communication.
- Analyzed financial models related to trades, contributing to better decision-making and performance evaluation.
- Completed over 76 training courses, including AML/SAR and Data Governance, earning recognition as Employee of the Month.

EDUCATION

Master of Science in Applied Data Science

Syracuse University, Syracuse, NY

May 2023 – May 2025

Bachelor of Science in Business Administration

State University of New York (SUNY) College at Oswego, Oswego, NY

August 2012 – May 2016

CERTIFICATIONS & MEMBERSHIPS

Member of Phi Kappa Phi

Syracuse University, Syracuse, NY

Member of Phi Beta Lambda

State University of New York (SUNY) College at Oswego, Oswego, NY

Director of Communication & Vice President of Public Relations for Enactus

State University of New York (SUNY) College at Oswego, Oswego, NY

Introduction

Data is often called the new oil, not because it is scarce but because like oil it must be cleaned, processed and even transformed before it can fuel intelligent and informed decisions. As Clive Humby, the British mathematician and data science pioneer, famously said, “Data is the new oil. It’s valuable, but if unrefined it cannot really be used”. This portfolio represents the culmination of work completed throughout the Master’s in Applied Data Science program, where data was gathered from a range of domains including retail, real estate, sports, finance and artificial intelligence to be analyzed and transformed into actionable insights.

The program is structured to equip students with the technical and analytical skills necessary to become successful data professionals in a world increasingly driven by data. The goal was simple: to not only extract value from data but to make that value practical and applicable. This portfolio is a culmination of those projects that demonstrate the ability to:

- Collect, store, and access data using appropriate technologies.
- Generate and communicate insights using the full data science lifecycle.
- Employ both R and Python to build and evaluate predictive models and visualizations
- Communicate insights gained to a broad range of audiences via visualizations.
- Utilize ethics in the use and evaluation of data systems and predictive models.

In IST 652, the project centered on Airbnb pricing strategies, examining pricing dynamics within the short-term rental market. Through data wrangling and machine learning techniques, patterns were identified, and data-driven pricing recommendations were developed. In IST 687, the analysis of Amazon sales data focused on extracting actionable business insights from transactional records, leveraging advanced visualization and statistical modeling techniques. IST 707 explored the application of predictive analytics and model evaluation to improve decision-making under uncertainty, specifically assessing whether supervised learning could enhance accuracy in NFL Sports Betting. In IST 659, a data-driven tool, code-named *Trade Genius*, was developed to support financial decision-makers by delivering high quality market trend research through a mobile platform. Finally, IST 692 addressed the ethical considerations of data science practice. This included assessing model fairness and investigating algorithmic bias

in generative AI systems, highlighting the importance of accountability and transparency in the development and deployment of data-driven technologies.

The following sections showcase a journey through learning, exploration, and discovery in the field of data science. Each project serves as a case study highlighting how data science techniques were applied to real-world problems and the valuable lessons uncovered along the way.

IST 687: Introduction to Data Science

This section will be a small overview of the project conducted for this class, which is one of the learning objectives this project meets for the program. What was the problem to be solved in this project

- Overview Summary
- Problem to be solved

PROGRAM OBJECTIVES MET

1. Collect, store, and access data by identifying and leveraging applicable technologies
 - a.
2. Create actionable insight across a range of contexts (e.g., societal, business, political), using data and the full data science life cycle
 - a.
3. Apply visualization and predictive models to help generate actionable insight
 - a.
4. Use programming languages such as R and Python to support generation of actionable insight
 - a.
5. Communicate insights gained via visualization and analytics to a broad range of audiences
 - a.

PROJECT VISUALIZATION

Visualization created within the project with a summary/explanation of how I was able to solve the problem statement. Visuals should also showcase the meeting of the learning objectives in some way.

- Data Summary
- SVM Visual
- Word Clouds and Keyword Analysis

REFLECTION

Conclusions of the project, Overall insights gain, reflection of this skill in my future career

This project exemplifies how end-to-end data analysis from acquisition and cleaning to modeling and visualization can deliver tangible business value. It aligns with almost all of the program objectives by applying technical tools, analytical thinking, and communication strategies to real-world data challenges.....

IST 659: Data Administration Concepts & Database Management

This section will be a small overview of the project conducted for this class, which is one of the learning objectives this project meets for the program. What was the problem to be solved in this project

- Overview Summary
- Problem to be solved

PROGRAM OBJECTIVES MET

1. Collect, store, and access data by identifying and leveraging applicable technologies
 - a.
2. Create actionable insight across a range of contexts (e.g., societal, business, political), using data and the full data science life cycle
 - a.
3. Communicate insights gained via visualization and analytics to a broad range of audiences (including project sponsors and technical team leads)
 - a.

PROJECT VISUALIZATION

Visualization created within the project with a summary/explanation of how I was able to solve the problem statement. Visuals should also showcase the meeting of the learning objectives in some way.

- Conceptual Model
- Physical Model
- UI/UX Mockup

REFLECTION

Conclusions of the project, Overall insights gain, reflection of this skill in my future career.

IST 652: Scripting for Data Analysis

This section will be a small overview of the project conducted for this class, which is one of the learning objectives this project meets for the program. What was the problem to be solved in this project

- Overview Summary
- Problem to be solved

PROGRAM OBJECTIVES MET

1. Collect, store, and access data by identifying and leveraging applicable technologies
 - a.
2. Create actionable insight across a range of contexts (e.g., societal, business, political), using data and the full data science life cycle
 - a.
3. Apply visualization and predictive models to help generate actionable insight
 - a.
4. Use programming languages such as R and Python to support generation of actionable insight
 - a.

5. Communication insights gained via visualization and analytics to a broad range of audiences (including project sponsors and technical team leads)
 - a.
6. Apply ethics in the development, use and evaluation of data and predictive models (e.g., fairness, bias, transparency, privacy)
 - a.

PROJECT VISUALIZATION

Visualization created within the project with a summary/explanation of how I was able to solve the problem statement. Visuals should also showcase the meeting of the learning objectives in some way.

- Neighborhood Price Chart
- Keyword Finder
- Correlation Matrix

REFLECTION

Conclusions of the project, Overall insights gain, reflection of this skill in my future career

IST 707: Applied Machine Learning

This section will be a small overview of the project conducted for this class, which is one of the learning objectives this project meets for the program. What was the problem to be solved in this project

- Overview Summary
- Problem to be solved

PROGRAM OBJECTIVES MET

1. Collect, store, and access data by identifying and leveraging applicable technologies
 - a.
2. Create actionable insight across a range of contexts (e.g., societal, business, political), using data and the full data science life cycle
 - a.

3. Apply visualization and predictive models to help generate actionable insight
 - a.
4. Use programming languages such as R and Python to support generation of actionable insight
 - a.
5. Communication insights gained via visualization and analytics to a broad range of audiences (including project sponsors and technical team leads)
 - a.
6. Apply ethics in the development, use and evaluation of data and predictive models (e.g., fairness, bias, transparency, privacy)

PROJECT VISUALIZATION

Visualization created within the project with a summary/explanation of how I was able to solve the problem statement. Visuals should also showcase the meeting of the learning objectives in some way.

- Weather-Based Win Analysis (Geographic Heat Maps)
- Correlation Matrix
- Word cloud/Text Analysis

REFLECTION

Conclusions of the project, Overall insights gain, reflection of this skill in my future career

IST 692: Responsible AI

This section will be a small overview of the project conducted for this class, which is one of the learning objectives this project meets for the program. What was the problem to be solved in this project

- Overview Summary
- Problem to be solved

PROGRAM OBJECTIVES MET

1. Collect, store, and access data by identifying and leveraging applicable technologies
 - a.
2. Create actionable insight across a range of contexts (e.g., societal, business, political), using data and the full data science life cycle
 - a.
3. Communication insights gained via visualization and analytics to a broad range of audiences (including project sponsors and technical team leads)
 - a.
4. Apply ethics in the development, use and evaluation of data and predictive models (e.g., fairness, bias, transparency, privacy)

PROJECT VISUALIZATION

Visualization created within the project with a summary/explanation of how I was able to solve the problem statement. Visuals should also showcase the meeting of the learning objectives in some way.

- DALL-E vs Imagine: A modern Indian Family
- DALL-E vs Imagine: A rural African Village
- DALL-E vs Imagine: A Black American CEO

REFLECTION

Conclusions of the project, Overall insights gain, reflection of this skill in my future career

Conclusion

Combined, these projects demonstrate my capability to:

- Select and utilize appropriate data storage and access technologies.
- Extract and communicate actionable insights in business and societal contexts.
- Build predictive models and visualizations that support decision-making.
- Leverage both R and Python effectively in data workflows.

- Articulate findings to both technical and non-technical stakeholders
- Apply ethical reasoning to the design and evaluation of data-driven systems

As data increasingly shapes every facet of our lives, the responsibility of data scientists extends beyond technical skills. It demands critical thinking, domain understanding, understanding of human behavior, and ethical awareness. This portfolio reflects not only my technical proficiency, but my preparedness to contribute meaningfully to the evolving landscape that is data science.

References

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