Mira Flynn

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PROJECTS

National High Injury Network Analysis Tool | *Python, Flask, SQL, AWS, NumPy, Pandas* September 2022 – May 2023

- Researched user needs and designed an application to fulfill them
- Developed an algorithm using OSMnx (OpenStreetMap data), NumPy, Pandas, SciPy, and Shapely to find the most dangerous roads in an area
- Worked in a small team using an Agile development process
- Developed a full-stack web application using Flask interfacing with an AWS database

EXPERIENCE

Data Analytics and Management Intern June 2022 – August 2022
Pfizer

- Determined which characteristics of the projects within the division were important for the division's leadership
- Designed and programmed an algorithm to process and visualize large amounts of project management data
- Developed a dashboard using Spotfire and Python to highlight the important characteristics I identified

Teaching Assistant- Data Science, Astronomy and Statistics September 2021 – May 2023
Olin College of Engineering Needham, MA

- Assisted in teaching probability and statistics, programming in R and Python, and effective visual communication of information
- Clarified probability and statistics concepts to students outside of the classroom environment
- Advised students when debugging code for assignments and projects
- Assessed student assignments for correctness, clear scientific writing, and effective visual communication of information

Researcher - Qualitative Interview-Based Research June 2021 – August 2021
Olin College of Engineering Needham, MA

- Researched how engineers process uncertainty in data with Professor Zach del Rosario
- Formulated an IRB-approved interview protocol and conducted interviews with engineering students
- Developed and applied a formal interview coding protocol
- Analyzed data and drew preliminary conclusions supporting the need for continued research
- Co-authored "A Qualitative Study of Engineering Students' Reasoning About Statistical Variability" (2021)

Researcher - Shared Mobility Systems June 2020 – August 2020
Olin College of Engineering Needham, MA

- Research equity in shared mobility systems for the City of Providence alongside professor Alice Paul
- Implemented a model of system demand and usage patterns in R using linear regression, decision trees, and multiple clustering algorithms
- Designed an application to visualize and explore our model using Shiny and Leaflet packages

EDUCATION

Olin College of Engineering August 2019 – May 2023
Bachelor of Science in Engineering: Computing Needham, MA
Recipient of 50% Tuition Merit Scholarship

Selected Coursework: SCOPE (Senior Capstone Program in Engineering), Technology, Accessibility, and Design, Probabilistic Modeling, Astronomy and Statistics, Principles of Integrated Engineering, Discrete Math, Computer Architecture, Complexity Science, Software Systems, Engineering Systems Analysis, Quantitative Engineering Analysis, Foundations of Computer Science, Data Science, Microelectronic Circuits, Modeling and Simulation

TECHNICAL SKILLS

Programming Languages: Python, R, SQL, Arduino, MATLAB, JavaScript, HTML, PHP, OCAML, C
Developer Tools: Git/GitHub, Amazon Web Services (AWS), VS Code, RStudio, Spotfire, Alteryx, Jira, macOS, Windows, Linux/Ubuntu
Libraries: NumPy, Pandas, GeoPandas, SciPy, OSMnx, Shapely, Matplotlib, Flask, Tidyverse, R Shiny, Leaflet, Tensorflow
General Skills: Computer Science, Software Development, Data Science, Documentation, Front End Programming, Back End Programming, Full Stack Programming, Relational Databases, Using APIs, Version Control, Machine Learning, Artificial Intelligence, Attention to Detail, Verbal and Written Communication, Collaboration, Creativity, Continuous Learning, Analysis, Problem Solving, Time Management