Blake Whitman

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Education

The Ohio State University — Columbus, OH
B.S. in Computer Science, B.A. in Mathematics — *Aug. 2019 – May 2023*
GPA: 4.0/4.0
Coursework: Data Structures, Algorithms, Operating Systems, Networking, Machine Learning, Web Applications, Probability Theory, Linear Algebra, Differential Equations, Abstract Algebra, Real Analysis
Specializations: Machine Learning, Theoretical Mathematics

Experience

Incoming Software Engineer Intern — Summer 2022
JPMorgan Chase & Co. — *Columbus, OH*

Software Engineer Intern — June 2021 – Aug. 2021
Fiserv — *Brookfield, WI*

- Bootstrapped a service to audit 2,400 internal Fiserv applications, verify their SSO/MFA compliance, and ensure proper authentication security coverage
- Implemented multi-threaded crawler using Python that pinged 90,000 DNS records to identify a subset of valid web URLs; multi-threading reduced runtime by 87.5%
- Devised and initialized a SQLite database schema that stored script results and automatically exported into a CSV with readable layout; used by 15,000 stakeholders

Optimization Research Assistant — Jan. 2021 – July 2021
The Ohio State University — *Columbus, OH*

- Introduced linear optimization problems over polar convex sets by incorporating the graphical method for linear programming
- Incorporated Python simulations using the Chart.js library to illustrate research methodology

Queuing Theory Research Assistant (REU) — May 2020 – Aug. 2020
The Ohio State University — *Columbus, OH*

- Developed a simulation in Java that modeled interactions between public transit in downtown Columbus, Ohio
- Created a GUI to display the flow of queues throughout the process, average passenger wait times and bus delay, and predicted bus arrival with 98% accuracy
- Built an Android application to collect data from Columbus public transportation users (COTA) and upload it to AWS

Projects

Veeva Systems Dashboard | *Python, Flask, React, SQLITE, Next, Tailwind* — November 2020 – Present

- Developed a full-stack web application for Veeva Systems that enabled dynamic doctor profile pages
- Implemented interactive graphs that displayed a doctor's prescription statistics, equipped with prediction forecasting measured to be 99.5% accurate
- Ranked doctors using multiple linear regression based on productivity, prescription total, and monthly trajectory to isolate future top candidates

Automated Scheduler | *Python, Flask, Selenium* — Dec. 2019 – Jan. 2020

- Created a Python bot that automatically enrolls a user in courses

Mode of Transportation Forecasting | *Python, NumPy, SciPy, Matplotlib* — Nov. 2019 – Dec. 2019

- Trained a machine learning model using pre-trained models (Google) to predict a user's mode of transportation
- Achieved around 85% accuracy using sklearn random forest models

Technical Skills

Languages: Java, Python, C, C++, SQL, JavaScript, HTML, CSS, Ruby, PHP, JSON
Frameworks: React, Node.js, Flask, JUnit, Rails, Tailwind
Libraries: Pandas, NumPy, Matplotlib, Chart.js