Miles Newland
350 Semple Street, Pittsburgh, PA 15213

(330)-245-6776 | mdn29@pitt.edu | Personal Page | LinkedIn | GitHub

Education

University of Pittsburgh   *Pittsburgh, PA*
Bachelor of Science in Computer Science   Expected May 2025
Major: Computer Science | Minor: Physics   Dean's List

Experience

VineAi   *Pittsburgh, PA*
Frontend Developer   *May 2024-September 2024*
- Designed and maintained entire user interface for first version of application used by 50+ clients
- Supported back-end development, specifically integrating back-end Flask server with React front-end
- Conducted web scraping to gather data from various websites

University of Pittsburgh   *Pittsburgh, PA*
Undergraduate Teaching Assistant   *Aug 2023-December 2024*
Assists in the following courses: Algorithm and Data Structures*,* Intro to Computer Programming, and Intermediate Programming
- Directed engaging labs and recitations for 20-30 students, honing debugging and presentation experience
- Utilized strong communication skills for clear one-on-one interactions and group presentations
- Maintained regular office hours, offering dedicated support and addressing student questions

Key Skills

Programming Languages:
- C, Rust, C#, Java (Spring Boot, JUnit, Mockito), Python (Flask, Pandas, NumPy, Beautiful Soup), JavaScript (React), SQL (PostgreSQL, MySQL)

Technical Qualifications:
- Version Control Systems (Git and GitHub): Adept at managing code repositories and collaborating on projects
- Web Design: Expertise in creating user-friendly interfaces with HTML, CSS, and JavaScript frameworks
- Software Engineering: Hands-on experience in project planning, system design, and full lifecycle development, from initial specifications to final implementation and maintenance
- Software Quality Assurance: Knowledgeable in software testing theory as well as practical skills in writing tests
- Cloud Services: Experience building projects in Google Cloud Platform as well as experience using Docker

Projects

Auto-Complete Engine
- Implemented the back-end of an auto-complete engine, utilizing a Trie structure to recommend words based on user history
- Showcasing skills in data structure implementation, algorithmic design, and Java

Wealth and Income Inequality Analysis
- Executed a comprehensive analysis of wealth and income inequality in the Pittsburgh area using Pandas
- Showcasing proficiency in data science and Python

Fast Food Order System
- Developed a Flask server API simulating a fast-food order system
- Showcasing skills in HTML, CSS, JavaScript, DOM, HTTP requests, Python, and Flask (routes, templates, models)

Financial Tracking Web App
- Collaborated with a team of Software Engineers to build full-stack web development and system design
- Contributed to project planning and system design by creating functional and non-functional requirements, UML use case diagram, and UML subsystem decomposition
- Developed the back-end of the application using Spring Boot and integrated backend with Angular JS front-end
- Simulated database using a .txt file for back-end storage of user data
- Showcasing skills in software engineering, Java, and JavaScript

Anomaly Detection System
- Team project done for Wolfe LLC where a team of engineers and I collaborated to detect anomalies in packages
- Front-end built in Next.js allowing users to visualize data and add new packages to our system
- MySQL database created to store package data and anomaly information.
- A Springboot RESTful API used to detect anomalies and communicate with the MySQL database and Next.js front-end
- Top contributor to this project with 21 commits and over 3,500 lines of code added
- Showcasing skills in software engineering, React, TypeScript, Java, Springboot, MySQL