

Andre Nguyen

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Education

University of Pittsburgh

(2020-2024)

Bachelor of Science, Computer Science

Professional Experience

• SEI Investments

(Summer 2023)

Software Developer Intern

- Worked in a team of 5 interns to propose generative AI tools to improve HR efficiency, attract and retain talent
- Helped develop features on SEI's Wealth Platform using **Angular, Typescript, Java, and Postman**
- Improved testing efficiency by 36%** by developing automated end-to-end test cases for SWP using **Typescript and Playwright**
- Assisted in Account Open team's Java 17 migration process using **Maven** resulting in a **performance boost of 16%**

Projects

• Forest Worker Database Management System

(Fall 2023)

- PostgreSQL database management system** that supports an **IoT** system that monitors forests
- Implemented schema, triggers, and analytical queries for main database "ArborDB"
- Assisted by a Java backend program to connect to PostgreSQL database using JDBC

• String Autocompletion Engine (Java)

(Fall 2022)

- Java backend that implements an autocomplete feature that predicts what a user wishes to type before they are finished typing
- Implemented a **custom** Radix Search Trie (De La Briandais Trie) **data structure** to store user strings and the history of strings user had implemented
- Used **custom search algorithm** for De La Briandais Trie that bases off number of times user had previously searched for a string
- Developed and ran own **custom test cases** to ensure efficiency of near **constant runtime** and usability

• Saving Grocer (Python, Flask, Selenium, HTML, CSS)

(Spring 2022)

- Winner of Steelhacks 2022 Hackathon, Smart Cities/Urban Planning Track*
- Python web app that scrapes pricing information of a user input grocery item from local grocers. Compares prices from grocers and returns which store has the lowest price.
- Designed website concept and layout, data scraping bots, and comparison functions
- Sorted through HTML paths to retrieve most relevant product from each grocer

• Pittsburgh Quality of Life (Python)

(Spring 2022)

- Sorted through public Pittsburgh data to signify which Pittsburgh neighborhood had the best quality of life
- Used Python **Pandas** library to analyze CSV files and used **GeoPandas** to work with geographical data of Pittsburgh
- Created and used custom metrics to standardize scores for each neighborhood in Pittsburgh

Awards

• Best Mechanical Engineering and Material Sciences Paper

(Spring 2021)

- "The Hemolung: An Alternative to Traditional Mechanical Ventilators"*
- Researched and analyzed runtime performance of Hemolung and its uses in the COVID-19 pandemic
- Met with CEO of ALung to learn about computing technologies of the Hemolung

Skills

Programming Languages: Java, Python, Typescript, Javascript, Rust, C, C++, PostgreSQL, NoSQL, SQL, React, Angular
Technologies: Linux, Git, Google Cloud Platform, Azure, Selenium, Playwright, Pandas, JDBC, Flask, Node.js, npm