

# Andre Nguyen

[andre.l.nguyen@outlook.com](mailto:andre.l.nguyen@outlook.com) | [LinkedIn](#) | [GitHub](#) | [Website](#) | 610-858-3016

## Education

University of Pittsburgh

(August 2020 - April 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, resulting in the founding of SEI Center for AI Excellence
- Developed frontend features on SEI's Wealth Platform using **Angular, Typescript, Java, and Postman**
- **Improved testing efficiency by 20%** 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 15% for API response time**

## 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 Le 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, SQL, Svelte, React, Angular

Technologies: Linux, Git, Google Cloud Platform, Azure, Selenium, Playwright, Pandas, JDBC, Flask, Node.js, npm