

Katherine Lim

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EDUCATION

Towson University | Towson, MD

May 2024

Bachelor of Science, Computer Science

Cumulative GPA: **4.0/4.0, summa cum laude**

Carroll Community College | Westminster, MD

December 2021

Associate of Arts, Arts and Sciences

SKILLS

Languages: Java, Python, C++, C, JavaScript, HTML/CSS, Kotlin, SQL, MATLAB

Technologies: React, NodeJS, Git, Linux/Unix environments, VS Code, Android Studio

Databases: MySQL, Google Firebase, MongoDB

EXPERIENCE

Computer Science and Mathematics Tutor, Embedded Tutor | Carroll Community College

July 2023 – Present

- Aid students working with Java, Python, C++, SQL, JavaScript, and HTML/CSS in courses such as Principles of Programming, Object-Oriented Programming, SQL and Database Design, and Web Development
- Give assistance to engineering and calculus students in coding projects using MATLAB
- Tutor students in a wide range of college level mathematics courses up to Calculus III
- Assist professors by sitting in on classes and providing in-class support as needed
- 1 of only 2 tutors able to help students enrolled in computer science courses
- Balanced a 12-hour-per-week tutoring role with a 12-hour academic schedule

Jr. Software Engineer Intern | Y STEM and Chess Inc.

August 2024 – November 2024

- Develop and maintain the organization's web application using Angular, TypeScript, HTML, SCSS, and JavaScript and contribute to server-side development using NodeJS and MongoDB
- Migrate existing projects to the MERN stack, including refactoring code, setting up new environments, and ensuring compatibility across different components
- Participate in code reviews and help ensure the overall quality and stability of the application by identifying and fixing issues
- Collaborate with team members and participate in meetings with partner companies to understand requirements, gather feedback, and discuss project progress

Relevant Coursework

Data Structures and Algorithms, Software Engineering, Database Management Systems, Web-Based Programming, Artificial Intelligence, Mobile App Development, Computer Organization, Discrete Mathematics, Statistical Methods, Calculus III

PROJECTS

TranslatePal Mobile App | Kotlin, SQL

- Developed a mobile application utilizing a translation API that enables users to translate phrases across multiple languages and designed a visually appealing and interactive user interface with Jetpack Compose
- Implemented a local database to store app data using the SQLite Room library

Costco Wholesale Database Model | Java, MySQL

- Implemented a normalized relational database modeled after Costco Wholesale's system in MySQL
- Developed a database application in Java and SQL to replicate Costco Wholesale's employee interface for viewing and managing the implemented database

BudgetBest Web App | JavaScript, ReactJS, Firebase

- Created a budgeting web app to track user expenses, income, and limits on customizable budget categories
- Implemented user authentication using Firebase and designed a responsive UI with Bootstrap

Home Motion Detector | Python, Tkinter, Raspberry Pi

- Developed a Python script to detect motion using a PIR motion sensor connected to the Raspberry Pi's GPIO pins and designed a GUI with Tkinter to display if motion was detected or not

EXTRA-CURRICULAR ACTIVITIES

Upsilon Pi Epsilon | Towson University | Member

April 2023 – Present

- Achieved superior academic excellence in computing and information disciplines

Software Engineering Club | Towson University | Member

January 2023 – May 2024

- Collaborated with fellow members and actively engaged in workshops and events hosted by the club