Aaryan Paudyal

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EMPLOYMENT

Software Engineer Intern

SimonComputing

June 2023 – July 2023

Data Dictionary Service

- Learned the Spring Boot Java framework to implement backend data, service, and controller layers. Gained experience with database domain design, connection, data access, and ORM using Spring Data JPA.
- Utilized TypeScript and the React library to create frontend UI/UX components. Implemented multiple components using React hooks and states. Gained experience with Axios routing and Redux stores.
- Participated in CI/CD pipeline procedures and used relevant tools such as GitHub actions, SonarQube, and Docker.
- Worked on a team of 12 other interns to implement a Data dictionary web application.
- Features include entry of database meta details which would be written to a Snowflake database using Snowflake JPA integration, creating transformations between columns of different tables, and visualizing these transformations.

Undergraduate Teaching Assistant

George Mason University

August 2023 – Present

- Teaching Assistant for CS483: Analysis of Algorithms course.
- Helped monitor online piazza forum, answering questions related to course material, projects, and homework.
- Assisted students by organizing review sessions.

EDUCATION

George Mason University

Virginia, VA

Fall 2021

- B.S. in Computer Science: 2021-Present. In-major GPA: 3.8.
- Undergraduate Coursework: Data Structures and Algorithms; Formal Languages and Automata Theory; Design and Analysis of Algorithms; Computer Systems Programming; Software Engineering; Database; AI; Numerical Analysis.

TECHNICAL EXPERIENCE

Projects

Floating Point Library (2022):

Public API Library which provides functionality for encoding integers into floating point numbers to be used in an external programming language.

- Used the IEEE encoding format to encode numeric integer data into a floating-point encoding.
- Implemented addition, subtraction, and multiplication functionality.
- Implemented using C.

Task Controller Shell (2022):

Terminal level task and process manager which allows for the execution of processes at the foreground and background levels.

- Managed the API level design given certain requirements.
- Utilized concurrency to manage the foreground and background process functionality.
- Utilized Unix file I/O to handle file redirects and pipes.
- Practiced event-based programming by using signal handlers for interpreting keyboard commands.
- Implemented using C.

LANGUAGES AND TECHNOLOGIES

- Java; C; C++; C#.NET; JavaScript; TypeScript; Python.
- Spring Boot; React.
- Visual Studio; Eclipse; Unix; Bash; Git.