Mahmudul Rapi

New York, NY

Education

Princeton University

August 2020 - Present

B.S.E. in Computer Science, Minor in Statistics and Machine Learning

Princeton, NJ

- GPA: 3.94
- Expected Graduation Date: May 2024
- Coursework: Algorithms & Data Structures, Full Stack Development, Distributed Systems, Networks, System Design, Systems Programming, Machine Learning, NLP, Logic Design, Quantum Computing, Economics and Computing

Experience

Borderless Dec. 2022 - Present

Software Engineering Intern

Louisville, KY (Remote)

- Developed a responsive dashboard in React.js for clients to view their financial transactions over a specified date range.
- Created new backend schemas and queries using GraphQL and TypeScript to calculate accounting data from payments and refunds a client has made or received.
- Optimized queries using asynchronous JavaScript to speed up loading times by 30% for financial data.

Princeton University Computer Science Department

Sep. 2021 - Present

Undergraduate Course Assistant

Princeton, NJ

- Graded over 200 students' programming assignments for the Algorithms & Data Structures (Java) and Systems Programming (C, ARM Assembly) courses.
- Provided personalized feedback for code style, efficiency, and correctness.

L3Harris Technologies

May 2022 - Aug. 2022

Software Engineering Intern

Clifton, NJ

- Worked in the Electronic Warfare division to transition team's old version control system to Git and Bitbucket for managing software and VHDL code, resulting in faster development of firmware.
- Worked on unit testing of VHDL code to increase code coverage from 50% to 80%.
- Linted firmware written in C++ to improve readability and code style, and identify bugs quicker.

Princeton University Psychology Department

Jan. 2022 - May 2022

Software Developer Research Assistant

Princeton, NJ

- Developed a web version of a motor-learning based WebGL Unity experiment, tripling the number of studies ran in Princeton's Intelligence and Adaptation Lab.
- Wrote C# code in Unity to fetch and log experiment data into Google Firebase, using REST API.
- Wrote JavaScript code for uploading settings and trial data for experiment from CSV files into Google Firebase.

Projects

TigerClimb | Python, HTML, CSS, JavaScript, PostgreSQL

- Worked on a team of five to develop a Flask web app allowing hundreds of students involved with the Princeton Climbing Wall to query climbing routes, and add/update routes.
- Implemented a comment system for users to comment on routes, and save a list of their favorite routes.

Princeton Registrar Application | Python, SQLite

• Created a graphical user interface in Python that allows Princeton students and other interested parties to query a database of classes and courses offered during a semester.

Timestamp Saver | JavaScript

• Created a Chrome extension using the Chrome Storage API to allow users to save timestamps of a YouTube video as they view it, and return back to video at the saved timestamps.

Technical Skills

Languages: Java, Python, Go, C, C#, HTML, CSS, JavaScript, SQL, R

Technologies/Frameworks: GraphQL, React.js, Flask, Bootstrap, jQuery, Git, Heroku, PostgreSQL, Google Firebase