Shimanto Bhowmik

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Education

Rochester Institute of Technology — Rochester, N.Y.
Bachelor of Science in Computer Science — *Aug. 2021 – May 2026*
Cumulative GPA: 4.0/4.0

Technical Skills

Languages: Python, Java, C, C++, SQL (Postgres), JavaScript, HTML/CSS, TypeScript
Frameworks: Angular, React, Node.js, Spring Boot, NestJS
Developer Tools: Git, VS Code, Visual Studio, PyCharm, Maven, IntelliJ, Jupyter Notebook, AWS
Other: Machine Learning, Natural language processing, Neural Networks, Tensorflow

Experience

Incoming Software Engineering Intern — August. 2023 – December 2023
Sage AI — Remote

- Utilizing large language models to build advanced financial analysis tools, empowering organizations with comprehensive data-driven insights and informed decision-making capabilities.
- Leveraging React, Python, nest-js, and lang chain to automate tasks and develop scalable software solutions, driving efficiency and productivity in complex financial environments of the future.

Software Development Engineer Intern — May. 2023 – August 2023
Amazon Alexa — Seattle, WA.

- Accelerated the evaluation of state-of-the-art large language models, improving their performance by 20% based on predefined criteria to inform strategic decision-making and advance language model technologies.
- Developed infrastructure empowering scientists to conduct rapid experimentation of large language models, resulting in 30% reduction in testing time and driving innovation in language model research and development.

Section Leader — April 2023 – June 2023
Stanford University — Remote

- Volunteered as a Section Leader for Stanford's Code in Place course, guiding 25 diverse students through Python programming fundamentals and providing feedback on assignments.
- Collaborated with instructors and Section Leaders to create a supportive learning environment resulting in 90% retention rates and positive student feedback.

Research Assistant — Jan 2022 – May 2022
Department of Computing Security, Rochester Institute of Technology — Rochester, N.Y.

- Implemented Python programs and scripts to automate critical processes, streamlining operations and eliminating manual tasks, including the automation of Excel functions.
- Programmed server-side databases using MySQL and socket programming, while also implementing an improved Shamir's Secret Sharing Scheme to simulate realistic data exchange among SmartMeters, Aggregators, and Electrical Utility Units on Raspberry Pis.

Projects

Deshi Food (Link)

- E-commerce model-based restaurant website built using React, Redux, Sass, Firebase, and deployed on Netlify.
- Migrated codebase to Typescript, improving code quality, maintainability, and safety.

Math Mania (Link)

- Created a gamified approach to teach my 7-year-old niece how to add/subtract. Built by training an AI model on the MNIST dataset to recognize handwritten numbers from 0 to 9, then used TensorFlow to classify the handwritten digits and visualized the model over time using TensorBoard to analyze performance.
- Converted the model to TensorFlow.js to create a math-based game on HTML, CSS, JS where the model was used to estimate digits drawn on the HTML Canvas.