

Shimanto Bhowmik

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EDUCATION

Rochester Institute of Technology

Bachelor of Science in Computer Science, Minor in Mathematics
Cumulative GPA: 4.0/4.0

Rochester, N.Y.

Aug. 2021 – May 2026

EXPERIENCE

Research Assistant

Jan. 2024 – Present

Department of Computer Science, RIT

Rochester, N.Y.

- Increased student engagement by 15% integrating the development of an R sandbox and R interactive sessions; funded by the National Science Foundation (NSF).
- Enhanced platform interactivity by 5% by incorporating Thebe and Binder improving the learning experience for students.

Machine Learning Engineer

Sept. 2023 – Present

Sage AI

Remote

- Amplified user interaction and enhanced customer engagement through designing and implementing a full-stack CRM product using React, Rust, AWS DynamoDB and AWS Cognito.
- Streamlined data-driven decision-making leading to a boost in analysis speed and accuracy by implementing efficient data ingestion processes for SEC filings in Python.
- Optimized data-driven decision accuracy for banks by developing advanced financial analysis tools using LLMs providing comprehensive insights into market trends and performance metrics.
- Increased productivity in complex financial environments through automation of financial tasks leveraging nest-js and Lang Chain.

Software Development Engineer Intern

May 2023 – Aug. 2023

Amazon Alexa

Seattle, WA.

- Enhanced Alexa next-gen Q&A LLM performance by 3% calculated by a thorough evaluation process based on predefined criteria by creating a detailed feedback system for LLM responses and tabularized feedback visualization.
- Decreased testing time by 12% as confirmed by Applied Scientists on our team by designing and implementing a tabbed chat interface with simultaneous query functionality across multiple LLMs.
- Spearheaded a 6% increase in efficiency and a 2% reduction in latency using a metric system to boost model performance analysis.

Research Assistant

Jan. 2022 – May 2022

Department of Computing Security, RIT

Rochester, N.Y.

- Gained a 15% boost in data exchange security among SmartMeters and Utility Units evidenced by the incorporation of an improved Shamir's Secret Sharing Scheme on Raspberry Pis through programming server-side databases using MySQL and socket programming.
- Led a development plan which initiated a 17% increase in productivity by minimizing manual tasks making use of critical processes automation with Python.

PROJECTS

Math Mania ([Link](#)) | *Machine Learning, TensorFlow, TensorBoard, JavaScript*

- Built a website-based learning platform for my niece enhancing her engagement and enjoyment in math by integrating interactive elements using JavaScript and HTML/CSS.
- Elevated digit recognition capabilities by training an ML model on the MNIST dataset using TensorFlow for classification and TensorBoard for performance refinement.

Deshi Food ([Link](#)) | *React, Redux, Sass, Firebase, OAuth, Netlify*

- Developed an e-commerce platform for a food-store using Cloud Firestore and React with Redux for state management.
- Implemented OAuth authentication ensuring secure access for 50 monthly users by integrating 2FA login.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, C#, TypeScript, JavaScript, HTML/CSS, Rust, Matlab, Bash, Assembly

Frameworks: Angular, React, Redux, Node.js, Spring Boot, PostgreSQL, NestJS, LangChain

Developer Tools: AWS, Git, Jira, Bitbucket, Firebase, Flash, Maven, Jupyter Notebook

Other: Unix, CI/CD, Machine Learning, Natural language processing, Neural Networks, Tensorflow

ACHIEVEMENTS

- Outstanding 1st Year Student Scholarship Award - RIT
- Asia Pacific ICT Award (APICTA) - China
- Bangladesh Association of Software & Information Services - National ICT Award