Shimanto Bhowmik

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EDUCATION

Rochester Institute of Technology Rochester, N.Y.
Bachelor of Science in Computer Science, Minor in Mathematics *Aug. 2021 – Dec. 2025*
Cumulative GPA: 4.0/4.0

WORK EXPERIENCE

Software Development Engineer Intern May 2024 – Sept. 2024
Amazon AGI *Seattle, WA.*
- Reduced deployment time by 50% and enhanced differentiation of LLM modules by designing and implementing a model release pipeline which improved deployment metrics and streamlined the release process.
- Amplified development frequency by reducing the time taken to update applications by 90%.
- Elevated LLM accuracy and reliability by introducing automated testing in development and post-deployment.

Machine Learning Engineer Sept. 2023 – May 2024
Sage AI *Remote*
- Amplified user interaction and enhanced customer engagement by 6% 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 of 8% in analysis speed and accuracy by implementing efficient data ingestion processes for SEC filings in Python.

Research Assistant Jan. 2024 – May 2024
Department of Computer Science, RIT *Rochester, N.Y.*
- Increased student engagement by 15% integrating the development of an R sandbox and R interactive sessions to compare data science learning outcomes in R and Python; funded by the National Science Foundation (NSF).
- Enhanced platform interactivity by 5% by incorporating Thebe and Binder improving the learning experience for students.

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.

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.
- Led a development plan which initiated a 17% increase in productivity by minimizing manual tasks making use of critical processes automation with Python.

PROJECTS

Note-ify (Link) | *Langchain, Pinecone, all-MiniLM-L12-v2, Gemini 1.5 Flash, FastAPI, Streamlit*
- Engineered a note management platform that enhances search response times by 20% using semantic vector-based search.
- Developed a chat-based interface for document interaction for streamlined user experience.

Math Mania (Link) | *Machine Learning, TensorFlow, TensorBoard, JavaScript, HTML/CSS*
- Built a website-based learning platform for my niece enhancing her engagement in math by integrating interactive elements.
- Elevated digit recognition capabilities by training an ML model on the MNIST dataset using TensorFlow for classification and TensorBoard for performance refinement.

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, Pinecone, Flash, Maven, Jupyter Notebook
Other: Unix, CI/CD, Machine Learning, Natural language processing, Neural Networks, Tensorflow

ACHIEVEMENTS

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