Shimanto Bhowmik

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WORK EXPERIENCE

Software Development Engineer Intern   May 2024 – Sept. 2024
Amazon Alexa   *Seattle, WA.*
- Reduced deployment time by 70% and enhanced differentiation of LLM modules by designing and implementing a model release pipeline which improved deployment metrics and streamlined the release process.
- Improved 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 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.

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

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

- 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