

Mahimul Islam

Full Stack Engineer

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LinkedIn | Portfolio | GitHub

Summary

Experienced Full Stack Engineer with **5 years of experience** delivering high-quality, scalable web applications and backend systems using **React.js, TypeScript, Node.js, Python, and AWS**. Proven ability to build **secure, user-centric solutions** and drive operational efficiency through **testing and automation**. Strong collaborator across cross-functional teams with expertise in **agile development, cloud platforms, and relational databases**.

Experience

Full Stack Engineer, Genome Medical Inc – South San Francisco, CA Aug 2022 – Jan 2025

- **Designed, deployed, and maintained** scalable cloud-based web and back-end systems using open-source technologies, ensuring 100% on-time delivery and continuous operational support for critical software applications.
- Played a **key role** in implementing a **seamless patient migration solution** between Genome Medical and GeneMatters platforms by **developing APIs and integrating** Node.js and Python-based systems with a one-click UI feature, enabling secure transfer of critical patient data and supporting large-scale migrations.
- **Strengthened** platform security by proactively identifying and resolving over 50 critical vulnerabilities using tools like **Aikido & Sentry**, a 30% improvement in system resilience and a reduction in reported security incidents.
- Designed, implemented, and maintained **CI/CD pipelines** using tools such as **GitLab CI/CD and Bitbucket pipelines**, automating the build, test, and deployment processes, resulting in a 20% acceleration in release cycles and ensuring consistent delivery of high-quality software.
- **Collaborated cross-functionally** with senior engineers, product managers, and designers to develop user-centric features, contributing to the successful launch of initiatives that **streamlined clinical workflows and improved operational efficiency**.
- **Built and executed automated testing frameworks** (unit, integration, and system testing) with Mocha, Jest, Selenium, and Cypress. This initiative resulted in a **40% reduction in production bugs, 15% acceleration in release cycles**, and significantly reduced the need for **hotfixes**, enhancing overall system **stability**.
- **Played a key role in agile sprints**, contributing to planning, refinement, and retrospectives to enhance **team productivity, contributing to the completion of over 30 high-impact product features during tenure**.
- Provided timely **production support**, resolving over **150 support tickets** within 6 months, ensuring continuous operational reliability and minimizing system downtime.
- Technologies: **React.js, TypeScript, JavaScript, Python, Flask, Node.js, Mocha, Jest, Selenium, Cypress, AWS, Docker, Postgres SQL**

Software Developer, Cardinal Selling Services, LLC – Huntingburg, IN Jul 2020 - Jul 2022

- **Designed and built an e-commerce platform** using **HTML, CSS, Bootstrap, and JavaScript** to optimize **B2B sales operations**, achieving a **20% increase in client satisfaction scores** and streamlining sales workflows by automating key processes.
- **Built an internal inventory management system** using **Python and Django**, improving operational efficiency and reducing manual workflows by **60%**.
- **Designed and Implemented product scraping systems** by leveraging **Python** and its libraries to improve data accuracy, product processing speed, and resulting in cost savings for the company.
- Reduced manual product upload time **from 5 minutes to 1 second per product** by automating the upload process, saving hundreds of hours annually and enhancing operational efficiency.
- **Performed integration and unit testing** with automated frameworks such as **Mocha, Jest, Selenium, and Cypress**, reducing **pre-release bugs by 30%** and ensuring high-quality software releases.

- Technologies: Python, HTML, CSS, Bootstrap, JavaScript, Django, Mocha, Jest, Selenium, Cypress, Docker

Education

Georgia Institute of Technology, Master of Science in Computer Science | In Progress

- Current GPA: 3.75/4.0
- Specialization:** Interactive Intelligence

Ahsanullah University of Science and Technology, Bachelor of Science in Computer Science & Engineering

- GPA: 3.43/4.0

Publications

Hybrid Text Summarizer for Bangla Documents

Nov 2020

Int. Journal of Computer Vision and Signal Processing (IJCVSP), Vol 10, No. 1

- First Author.
- Topic: Natural Language Processing, Text Summarization & Machine Learning.

Active Projects

SAMI (Social Agent Mediated Interactions) | Design Intelligence Lab

Aug 2024 – Present

- SAMI is a social AI actor** designed to enhance students' social presence in online classrooms by encouraging peer connections based on shared identity, developed by AI-ALOE and the Design Intelligence Lab.
- Key Contributions:**
 - Implemented AI-powered student matching algorithms using **ChatGPT** to identify and suggest connections between students based on shared interests, goals, and identity markers.
 - Integrated **Neo4j** graph database to model and analyze complex student relationship networks, enabling personalized and dynamic peer recommendations.
 - Designed interactive prototypes to evaluate SAMI's impact on the social construction of knowledge and its role in improving learning outcomes.
 - Collaborated with interdisciplinary teams to incorporate principles from cognitive science, artificial intelligence, and educational technology into SAMI's development.
 - Analyzed user interaction patterns to optimize SAMI's capabilities in promoting engagement and improving retention rates in online learning environments.
 - Successfully deployed SAMI in multiple online classrooms at the Georgia Institute of Technology, demonstrating measurable improvements in student interaction and collaborative learning.
- Technologies: Python, Neo4j, Docker, AWS, OpenAI.

Certification

Python for Everybody (Specialization with 5 Individual courses) | University of Michigan

2020

Deep Learning (Specialization with 5 Individual courses) | DeepLearning.ai

2020

Deep Learning (Specialization with 5 Individual courses) | John Hopkins University

2020

Natural Language Processing with Classification and Vector Spaces | DeepLearning.ai

2020

ITEE FE (Fundamental Information Technology Engineer Examination) | Bangladesh Computer Council

2020

Bangladesh Japan ICT Engineers Training Program (BJET) | Bangladesh Computer Council

2020