FARDIN ANAM AUNGON

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Rochester, NY

SUMMARY

Full-stack Software Engineer with **2.5+** years of experience in building scalable, cloud-native applications using Java Spring Boot, Python, and ReactJS. A fast learner who excels in Agile environments and seamlessly adapts to new technologies and challenges. Seeking Software Engineering **co-op/internship for summer 2026**.

EDUCATION

Master of Science, Computer Science
August 2025 – July 2027 (expected)

Rochester Institute of Technology
Rochester, NY

- Current courses: Object Oriented Programming, Foundation of Computer Science Theory, Distributed Systems

Bachelor of Science (BSc), Computer Science & Engineering
April 2019 – July 2024

Bangladesh University of Engineering & Technology
Dhaka, Bangladesh

- Relevant courses: Data Structures & Algorithms, Operating Systems, Software Engineering, Computer Networking, Databases, Compilers, Artificial Intelligence
- Projects: Two fully functional full stack software engineering projects
- Research: Applied deep learning for place recognition and contrastive learning for earthquake detection
- CGPA: **3.92**/4.0

WORK EXPERIENCE

Software Engineer II
November 2023 – July 2025

Pridesys IT Ltd.
Dhaka, Bangladesh

- Contributed to the development of a **cloud-based** enterprise resource planning (ERP) system designed for scalability and modular growth
- Built the ERP's microservice architecture from scratch, defining communication protocols and deployment standards as part of the core decision-making team
- Collaborated with designers and developers to integrate **user experience best practices**, ensuring consistent and intuitive UI/UX flows across the application.
- Maintained **Agile development processes** using **JIRA** and documented workflows and design decisions in **Confluence** for transparent team coordination
- Implemented 100+ backend APIs using **Java Spring Boot**, achieving 98% unit test coverage through **JUnit** and **Mockito** for robust backend reliability
- Developed an interactive, real-time UI using **ReactJS**, **TypeScript**, **Tailwind CSS**, and **Redux Toolkit**, ensuring smooth state management and modular component structure
- Led the frontend development lifecycle from prototype to production-ready design, focusing on dynamic content rendering and cohesive user interface refinement
- Designed 30% of the ERP's initial database schema in **PostgreSQL**, optimizing for data normalization and cross-database compatibility
- Deployed microservices on **Azure Kubernetes Service (AKS)** using **Docker** and **Helm charts**, establishing a containerized CI/CD workflow for scalable deployment using **Github Actions**
- Automated **TLS** certificate management using cert-manager to securely expose Kubernetes services to external users

Research Assistant
December 2022 – August 2024

Institute of Water And Flood Management, BUET
Dhaka, Bangladesh

Worked on a government-funded research project to develop a web-based early warning system for river erosion.

- Developed and maintained the user interface using **ReactJS**, ensuring responsiveness and accessibility across devices for diverse user groups
- Integrated **Google Maps API** to visualize real-time river erosion data, enabling researchers to monitor geospatial changes interactively
- Collaborated with researchers and engineers to design and deploy the early warning system prototype on Render, supporting live data retrieval and scalable cloud deployment

RESEARCH EXPERIENCE

Earthquake Early Warning System
January 2024 – August 2025

- Researched and developed a novel deep learning architecture, Seismic **Convolutional Neural Network** (SCNN), for on-site seismic intensity prediction
- Designed and trained SCNN using initial segments of seismic waveforms from single-station inputs, improving early earthquake warning feasibility
- Achieved lower prediction error (MSE 0.2332, SD 0.4794) compared to state-of-the-art SC-GNN (MSE 0.4172, SD 0.611), demonstrating superior accuracy and reliability

Learning to Index 3D Point-Cloud for Efficient Place Recognition
May 2023 – January 2024

- Conducted a comprehensive literature review on state-of-the-art place recognition methods using partial 3D point clouds and deep neural networks, identifying key architectural trends and limitations
- Generated partial point clouds from the Oxford RobotCar Dataset to train and evaluate deep models including PointNetVLAD and CASSPR
- Achieved 98% average recall (AR@1%) on the modified partial dataset, demonstrating robust place recognition performance even under incomplete 3D data conditions

NOTABLE PROJECTS

SyncInc fardinanam/SyncInc

- Developed a full-stack project and task management platform using **PostgreSQL**, **Django**, **ReactJS**, **Material UI**, and **Firebase Firestore**, enabling efficient task tracking and collaboration
- Built RESTful APIs with **Django** REST Framework to ensure seamless data exchange between the frontend and backend modules
- Implemented real-time notifications via Django Channels, allowing instant task updates and improving multi-user interaction within the system
- Collaborated with a 3-member team to test and validate features, simulating a real-world project management workflow for robust usability testing

RentaStay fardinanam/RentaStay

- Developed a web application for renting and managing houses and apartments using **Django**, **Oracle Database**, Vanilla **JavaScript**, and **Bootstrap**, enabling streamlined property management
- Designed and implemented backend architecture in Django, including **database schema design**, query optimization, and integration with Oracle Database, ensuring reliable data handling
- Built interactive UI components with Vanilla JavaScript and applied Bootstrap for responsive and user-friendly interfaces, enhancing usability and client-side interaction

LEADERSHIP EXPERIENCE

Project Lead (discuss.chat) at Pridesys IT Ltd.
April 2025 - July 2025

Led the development of discuss.chat, a team communication platform inspired by Mattermost.

- Spearheaded architectural decisions and product direction, guiding a small distributed team for efficient project delivery
- Delivered a fully functional beta version by optimizing team workflows using Mattermost and Plane, ensuring seamless coordination and timely feature rollout
- Designed and developed the frontend with ReactJS and Tailwind CSS, creating a responsive and intuitive user interface
- Integrated Matrix to enable secure, federated messaging, improving team information-sharing efficiency
- Incorporated LiveKit for real-time video and audio communication, supporting synchronous collaboration
- Maintained the Git repository with GitHub Actions, automating testing and deployment workflows

EXPERTISE AND SKILLS

- **Programming Languages:** C/C++, Java, Python, JavaScript, TypeScript, x86 Assembly, SQL, CSS, Bash, HTML5
- **Databases:** Oracle DBMS, PostgreSQL
- **Backend:** Java Spring Boot, Python Django, JUnit, Mockito
- **Frontend:** ReactJS, Redux, Tailwind CSS
- **AI & ML Libraries:** PyTorch, Tensorflow
- **AI Tools:** Github Copilot, Claude, ChatGPT, v0, Bolt
- **Devops:** Git, Github Actions, Docker, Kubernetes
- **Others:** Jira, Postman, Bruno, Unity, Git, Vite, Bison, Flex, OpenGL, Pygame, Sklearn, Microsoft Office, Google Workspace