

M D . J O Y N A L A B E D I N P A R A G

Principal Software Engineer

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PROFILE

I am a seasoned Principal Software Engineer with over 12 years of experience in Information Technology, software development, artificial intelligence, and business development. My career has been driven by a passion for leveraging cutting-edge technologies to solve complex business challenges and deliver impactful solutions. Throughout my professional journey, I have had the privilege of working with diverse industries, leading teams, and driving innovation.

WORK EXPERIENCE

PRINCIPAL SOFTWARE ENGINEER

Daniyal Technologies Ltd

2026- PRESENT

- Led the development of a scalable SaaS-based POS platform, overseeing team management, mentoring, and rigorous code reviews to maintain high engineering standards.
- Designed and architected modular, microservices-based systems, significantly improving maintainability, scalability, and system resilience.
- Provided technical leadership by producing comprehensive Technical Design Documents (TDDs) and clear architecture diagrams, ensuring alignment across cross-functional development teams.
- Delivered end-to-end full-stack solutions using TypeScript, NestJS, and Next.js, while optimizing PostgreSQL performance to substantially enhance system efficiency and user experience.
- Established Standard Operating Procedures (SOPs) and implemented robust CI/CD pipelines to enable reliable, automated, and efficient deployments.

TEAM LEAD, SOFTWARE DEVELOPMENT

Divergent Technologies Ltd, Dhaka

2024- 2025

- End-to-End Solution Design: Led the full cycle from client workshops and requirement analysis to system architecture and technical specification.
- Scalable Architecture: Designed and architected microservices systems, improving modularity and reducing deployment interdependencies by 30%.
- Technical Leadership: Created detailed technical design documents (TDDs) and architecture diagrams to guide development teams and ensure project alignment.
- Full-stack developer proficient in building scalable backend services with Typescript/Python/Go and dynamic front-ends with TypeScript/React. Expert in database architecture, optimizing PostgreSQL and MongoDB to significantly enhance performance and user experience.

ASSISTANT PROGRAMMER

Chattogram Development Authority

2022- 2024

- Built robust applications by choosing the right backend technologies (PHP) and databases (PostgreSQL, MongoDB) to maximize scalability and performance. Designed microservices architectures that improved modularity and cut deployment dependency by 30%. Full-stack developer skilled in scalable backend development with TypeScript/Python and dynamic front-ends with TypeScript/React, with deep expertise in optimizing PostgreSQL and MongoDB for high performance.

LEAD ENGINEER

Samsung R&D Institute Bangladesh, Dhaka

2018- 2022

- Spearheaded the end-to-end design and development of embedded systems and IoT solutions, architecting microcontroller-based platforms using Arduino and Raspberry Pi to serve both internal operational needs and external client products.
- Led requirement analysis and technical planning for a diverse portfolio of projects, translating complex business needs from in-house stakeholders and foreign clients into robust application architectures and detailed development roadmaps.
- Directed full-stack application development, strategically selecting and implementing technologies—including TypeScript, Python, MySQL, PostgreSQL, and MongoDB—based on specific project requirements for scalability, performance, and data complexity.
- Mentored and coordinated engineering teams in the agile development of both hardware and software systems, fostering best practices in code quality, system integration, and cross-functional collaboration to ensure on-time project delivery.

SR. SOFTWARE ENGINEER

ServiceEngineBPO, Dhaka

2015 - 2018

- Led end-to-end application development by conducting in-depth requirement analysis with both internal stakeholders and international clients, translating complex business needs into technical specifications and scalable full-stack solutions.
- Architected and engineered robust applications by strategically selecting and implementing backend technologies (PHP) and databases (MySQL, PostgreSQL, MongoDB) to optimally meet specific performance, scalability, and data structure requirements for each project and products.

SOFTWARE ENGINEER

CloudWell Limited, Dhaka

2014 - 2015

- Developing company's core business application and in house application both as part of the team or as an individual using PHP & MySQL. Developing REST API server for third parties & API Integration with leading telecom operators & online bus, train ticketing services in Bangladesh.

WEB DEVELOPER

One Leap Microsystem, Chittagong

2013 - 2014

- Requirement analysis and application and website development for foreign clients. Served as an instructor and coordinator of web development courses.
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EDUCATION

Noakhali Science & Technology University

2008 - 2012

Bachelor in Computer Science & Telecommunication Engineering

Chittagong Cantonment Public College

2005 - 2007

Higher Secondary School Certificate

TECHNICAL SKILLS

- **Programming Languages:** TypeScript, Go, Python, Java, PHP, JavaScript,
- **Backend Development:** REST APIs, GraphQL, microservices architecture, Express.js, Nest.js, Laravel, Django, Kafka, RabbitMQ etc.
- **Frontend Development:** HTML, CSS, vanilla.js, Next.js, etc.
- **Databases:** MySQL, PostgreSQL, MongoDB, Influx, cassandra, Redis, Elasticsearch
- **Cloud Platforms:** AWS (EC2, S3, Lambda), Digital Ocean, Azure, GCP, Kubernetes, Docker.
- **Version Control:** Git, GitHub, GitLab, Bitbucket.
- **CI/CD Tools:** Jenkins, Travis CI, CircleCI, GitHub Actions.
- **Testing:** Unit Testing, Integration Testing, TDD (Test Driven Development), BDD (Behavior Driven Development).
- **DevOps:** Docker, Kubernetes, CI/CD pipelines, Infrastructure as Code (Terraform, Ansible).
- **Software Development Methodologies:** Agile, Scrum, Kanban.
- **IoT (Internet of Things):** Experience with IoT device programming, protocols like MQTT, and platforms like Arduino or Raspberry Pi.
- **Computer Vision:** Knowledge of computer vision libraries such as OpenCV and experience with image processing and object detection models.
- **Model Deployment:** Experience in deploying machine learning models using cloud platforms and containerization tools like Docker and Kubernetes.
- **Cybersecurity:** Experience with security tools like Wireshark, Metasploit, or OWASP ZAP.