# Protick Roy

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### SUMMARY

Software Engineer with over 5 years of experience building SaaS, EdTech, ERP, and real-time communication platforms. Skilled in designing scalable backend systems, APIs, and cloud solutions with a track record of improving performance, implementing secure workflows and ensuring high availability. Passionate about writing clean, maintainable code and delivering reliable software that makes a meaningful impact.

## EXPERIENCE

Software Engineer

Aug 2023 – Present

Ngaze Inc. / Dhaka, Bangladesh

- Translated stakeholder requirements into data models and production-ready features, achieving near-perfect alignment with customer needs and reducing rework.
- Engineered stateless, type-safe REST APIs with consistent validation/serialization and data integrity guarantees, cutting integration bugs reported by frontend teams by 45% and speeding feature integration.
- Built a content versioning system that let admins publish, update and archive without impacting live content, reducing publishing errors by 90% and eliminating rollback downtime.
- Integrated payment gateways in a modular framework, enabling new gateways to be added in under a day and reducing integration effort by 70%.
- Restructured the backend into a modular, standardized architecture, improving maintainability, scalability and onboarding for new developers.
- Implemented BullMQ job queues for reporting/analytics, improving dashboard load times and boosting responsiveness for users.
- Ensured reliability of CI/CD pipelines and Kubernetes workloads on GCP by troubleshooting failures and monitoring logs for live issues, and configured/deployed new services for staging and production.
- Partnered with frontend developers to refine API usability and ensure smooth adoption during integration.
- Collaborated with senior engineers on architecture decisions, securing approvals for major feature implementations.

TypeScript, Fastify, React, Next.js, SCSS, BullMQ, Stripe, Redis, Docker, Kubernetes, GCP, AWS, GitHub Actions

## Software Engineer (Contract) Omnisoft Lab / Dhaka, Bangladesh

Oct 2020 - Jul 2023

- Collaborated with the core development team on project-based contracts, often acting as a lead by unblocking teammates, reviewing designs and guiding implementation across system architecture, backend APIs, frontend integrations, cloud deployments and monitoring.
- Established project structures, version control workflows, development pipelines and deployment processes to ensure consistent and reliable delivery.
- Dollabills (dollabills.club): Social platform with real-time chat and video conferencing; implemented real-time messaging, audio/video calling and streaming features, while optimizing queries and ensuring scalable performance. Integrated PayPal and Stripe payments.
- Inventory & HR Management System (Shamima Rashid Enterprise, offline): Designed role-based authorization, HR and inventory modules; introduced FIFO stock clearance methodology despite client ambiguity, enabling accurate reporting and stock flow. Deployed and maintained on DigitalOcean.
- **CPRExchange** (cprexchange.com): Recommerce marketplace with product listings and secure payments; implemented OTP service for authentication and managed staging, production deployments.

TypeScript (Express.js, Next.js, TypeORM), PHP (Laravel), MySQL, AWS (Chime, Kinesis, S3, EC2, Route53), DigitalOcean, PM2, Nginx, WebRTC, WebSocket

# Junior Software Engineer

Divine IT Limited | Dhaka, Bangladesh

Sep 2019 - Apr 2020

- Developed ERP modules, starting with CRUD features and later advancing to core engineering tasks, integrating the in-house Central Authentication System and resolving client-specific ERP bugs.
- Built an attendance device monitoring system to ingest and normalize multi-model device data, sync with ERP and improve HR reporting accuracy.

• Collaborated directly with business analysts, product managers, IT/deployment teams and executives; wrote deployment documentation to support cloud rollouts.

Python (Django, SQLAlchemy), HTML, JavaScript, jQuery, CSS, Git, GitLab, MySQL, SQLite, Agile/Scrum, Linux Mint

#### Junior Software Engineer

BFIN IT Limited | Dhaka, Bangladesh

Oct 2018 - Jul 2019

- Developed and maintained ERP modules using PHP, JavaScript, jQuery and Bootstrap, ensuring stability and usability for business operations.
- Integrated payment gateways and third-party APIs to enable secure online transactions and expand ERP functionality.
- Collaborated with senior engineers on debugging, feature rollouts and client requests, gaining experience in full-stack workflows and production deployments.

PHP, JavaScript, jQuery, Bootstrap, MySQL

## **PROJECTS**

• Video Surveillance & Security System (github.com/protickr/video\_surveillance\_and\_security\_system): IoT system using computer vision to detect motion in real time and send email alerts; included Raspberry Pi setup and cloud deployment.

Python, OpenCV, Raspberry Pi, Shell, PHP, JavaScript

• The Wild Oasis (oasisprotick.vercel.app/login): Hotel management app with secure auth, booking flows and admin dashboard; state managed with Redux and deployed on Vercel.

React, Redux, Supabase, styled-components, Vite, Vercel

## TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, PHP, SQL

Frontend/Frameworks: HTML5, CSS3, SCSS, React, Next.js, Tailwind, Express.js, Fastify, Django, Laravel

Databases/ORM: MySQL, MongoDB, Redis, Prisma, TypeORM, SQLAlchemy

Cloud/DevOps: Docker, Kubernetes, Nginx, Apache, GCP, AWS, DigitalOcean, CI/CD

Tools/Practices: Git, GitHub/GitLab, Postman, Agile/Scrum

Environments: Linux, macOS

Preferred Stack: TypeScript | Fastify (REST/JSON) | Next.js | MySQL + Prisma | Docker & K8s | GCP

#### **EDUCATION**

#### Bachelor of Science in Computer Science and Software Engineering

American International University Bangladesh

Sep 2013 – Jan 2018 CGPA: 3.89 / 4.00