

EXPERIENCE

Bitmosys Full-time

Backend Developer

Feb 2024 - Present

• Backend System Design:

- * Designed database schema and architectural diagrams for an ERP application.
- * Researched and recommended cost-effective solutions for database, observability, object storage, cloud providers, authentication, and disaster recovery.
- * Wrote foundational backend code, established coding guidelines, and set up CI/CD pipelines for both frontend and backend.

o Observability:

- * Built a self-managed observability stack using Loki, Grafana, Prometheus, Jaeger, and Uptime-Kuma.
- * Developed logging and tracing services to capture and send logs and traces for enhanced system monitoring.
- * Created Grafana dashboards to visualize observability data.
- * Set up monitoring and alerting systems with Uptime-Kuma and Alertmanager, including escalation chains for incident response.

o Deployment:

- * Deployed the said monitoring stack with appropriate level of scaling and retention.
- * Deployed a Postgres cluster with high availability replication, backups and logging.
- * Deployed a Redis cluster with high availability for storing ACL.
- * Deployed a Nginx as API gateway with cert manager for SSL connection.
- * Deployed a Linkerd service mesh for monitoring inter-pod latency and securing inter-pod traffic with mTLS.
- * Deployed all APIs with horizontal pod auto scaling.

o Development:

- * Developed services to generate and send itemized billing to clients and provide monthly usage reports (storage, egress/ingress).
- * Built scalable APIs and CRUD endpoints using NestJS, adhering to best coding practices.
- * Introduced documentation standards and diagrams for key project components.
- * Created a distributed rate-limiter service to prevent resource abuse and asynchronously generate, store, and email PDF documents.
- * Built a service to generate per client usage reports.

Cango Freelance

Fullstack Developer

Nov 2023 - Sept 2024

- Component Library: Developed a reusable component library with over 25 components based on a new design system, improving front-end development efficiency.
- Dashboards: Built dynamic dashboards using these components for users with varying permission levels.
- Form builder: Created a form builder similar to Google Forms to capture survey responses from voters.
- o Data Visualization: Designed interactive dashboards using Apache ECharts to visualize survey data.
- Refactor: Refactored legacy code to typescript following best practises for type safety.
- **Optimizations**: Refactored legacy code to TypeScript for improved type safety and reduced over-fetching using React Query, resulting in more efficient state management.

Talent Exploriz Freelance

Fullstack Developer May 2022 - Jun 2023

- **Frontend**: Developed a responsive frontend for an event management app using React, TypeScript, and Tailwind CSS.
- $\circ\,$ Backend: Built the backend with JWT-based authentication using NodeJS and TypeScript.
- Deployment: Deployed the frontend using AWS Amplify and the backend using EC2 for scalable hosting.

Matrice AI Full-time Jun 2022 - Jun 2023

Frontend Developer

o Landing Page: Developed a highly optimized landing page with interactive animations using NextJS, achieving a load time under 400ms.

- o Dashboard Refactor: Refactored the dashboard for the data annotation, training, and inference platform based on new UI designs.
- Data Labeling Platform: Developed and deployed the backend for an image annotation platform on AWS, supporting seamless image labeling.

TECHNICAL SKILLS

o Languages: Typescript, JavaScript, Python, Go, SQL

• Backend: NodeJS, NestJS, ExpressJS, Keycloak, Nginx, MinIO

o **ORM:** Prisma, TypeORM, Mongoose

o Database: MongoDB, PostgreSQL, MySQL, Redis

o **Observability:** Prometheus, Grafana, Loki, OpenTelemetry

o Cloud: AWS, Digital Ocean, Linode, Vercel

o Frontend: React, NextJS, React-Query, Zustand, Astro, ECharts

o Styling: Tailwind, shaden, CSS

o Other: Git, Linux, Docker, Kubernetes, Helm, Service Mesh, GitHub Actions

EDUCATION

Kantipur Engineering College Bachelor on Computer Engineering

Kathmandu, Nepal 2018 - 2022