

EXPERIENCE

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- Bitmosys**

Backend Developer

Full-time

Feb 2024 - Present

  - **Backend System Design:**
    - \* Designed database schema and architectural diagrams and tech stack for a ERP app.
    - \* Researched and presented findings on various self managed OSS and SaaS based options for database, observability, object storage, cloud providers, authentication, email and disaster recovery strategies.
    - \* Wrote the foundation code, establish coding guidelines and setup CI/CD for the frontend and backend code base.
  - **Observability:**
    - \* Built self managed observability stack using Loki, Grafana, Prometheus, Jaeger and Uptime-Kuma.
    - \* Build logging and tracing service to capture and send logs and traces.
    - \* Built dashboard in Grafana to visualize data from these sources.
    - \* Set up monitoring and alerting using Uptime-Kuma and Alertmanager with an escalation chain.
  - **Reporting:**
    - \* Built a service for generating and send itemized billing for client at end of every month.
    - \* Built a service for generate per client usage reports for storage, egress/ingress for better pricing strategy.
  - **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.
  - **Development:**
    - \* Built APIs and CRUD endpoints using NestJS following best coding practises.
    - \* Introduced practise of documenting and diagramming important parts of the project.
    - \* Built a service for sending emails with retry logic and recording the mail for archival purpose.
    - \* Built a cluster wide distributed rate limiter for preventing abuse of resources.
    - \* Build service for asynchronously generating, storing and mailing various types of pdf documents.
- Cango**

Fullstack Developer

Freelance

Nov 2023 - Sept 2024

  - **Component Library:** Built an reusable component library with over 25 components from a new design system.
  - **Dashboards:** Built dashboards with said UI components for users with varying permission levels
  - **Form builder:** Built a google forms like form builder to capture survey response from voters.
  - **Data Visualization:** Build dashboard using Apache ECharts to visualize the responses captured from the said surveys.
  - **Refactor:** Refactored legacy code to typescript following best practises for type safety.
  - **Optimizations:** Reduced over fetching and fetching states with React Query.
- Talent Exploriz**

Fullstack Developer

Freelance

May 2022 - Jun 2023

  - **Frontend:** Built frontend for a event management app using React, Typescript, Tailwind CSS
  - **Backend:** Built a fully functional backend with JWT based authentication and using Typescript, NodeJS
  - **Deployment:** Deployed front-end using AWS Amplify and back-end using EC2
- Matrice AI**

Frontend Developer

Full-time

Jun 2022 - Jun 2023

  - **Landing Page:** Built a landing page with interaction based animations using NextJS that loads under 400 ms
  - **Dashboard:** Refactored the dashboard for data annotation, training and inference platform using React according new UI designs.
  - **Data Labeling Platform:** Built back-end for image annotation platform and deployed it in AWS.

## TECHNICAL SKILLS

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- **Languages:** Typescript, JavaScript, Python, Go, SQL
- **Backend:** NodeJS, NestJS, ExpressJS, Keycloak, Nginx, MinIO
- **ORM:** Prisma, TypeORM, Mongoose
- **Database:** MongoDB, PostgreSQL, MySQL, Redis
- **Observability:** Prometheus, Grafana, Loki, OpenTelemetry
- **Cloud:** AWS, Digital Ocean, Linode, Vercel
- **Frontend:** React, NextJS, React-Query, Zustand, Astro, ECharts
- **Styling:** Tailwind, Shadcn, CSS
- **Other:** Git, Linux, Docker, Kubernetes, Helm, GitHub Actions

## EDUCATION

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- **Kantipur Engineering College** Kathmandu, Nepal  
*Bachelor on Computer Engineering* *2018 – 2022*