Aakash Bagale Thapa

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EXPERIENCE

Software Developer II, Avinto IT

March 2024 - Present

- Led a technical team of 3, building AI-driven business development platform, HugoAssist, especially catered to the Norwegian market
- Implemented asynchronous task handling with Celery and RabbitMQ to ensure scalability and reliability
- Managed end-to-end Azure deployment, including setting up CI/CD pipelines for streamlined production workflows
- Built a scalable backend in Django, following MVC architecture to support robust business logic and integrations
- Played a client-facing role, gathering requirements, providing updates, and ensuring alignment with client expectations
- Developed a high-performance frontend using Next.js, including dynamic chat interfaces and complex UI logic

Contract Mobile Developer, BookToks

Nov. 2024 – Jan. 2024

- Worked on **EPUB rendering** for E-Book view, customization, annotation, search, and navigation. Utilized Expo **React**Native for cross-platform mobile application compatibility, ensuring seamless performance on both Android and iOS.
- Developed efficient REST APIs with **Django** and Django Ninja, integrating **PostgreSQL** and **Supabase** for scalable and secure backend solutions. Utilized bucket storage. Wrote Python scripts for **API testing**.
- Streamlined state management with **Redux Toolkit** and **RTK Query**, reducing API call redundancy by 40% & improving data synchronization. Implemented clean and reusable components & modals/sheets, hooked them with efficient state logic.

FullStack Engineer - Part Time , likhitnepal.com

Sep. - Dec. 2024

- Built an Open Source Nepal driving license exam prep and resource hub platform.
- Engineered HashMaps for rehydration accommodating Zustand dynamic and optimized global state creation & management. Optimized TTI by 30%. Integrated map navigation, test and review systems, and color blind testing.
- Utilized NextJs and Tailwind for frontend and responsiveness across devices. Reduced LCP by 20% using lazy load and SSR.

Contract Full Stack Jr. Engineer, TicketShack

Sep. - Nov 2024

- Optimized frontend to figma accurate design using NextJs and tailwind. Ensured responsiveness across devices
- Employed Zustand for robust global state management. Implemented efficient SSR and CSR. Reduced CLS by 40%
- Integrated Tanstack Query. Reduced redundant calls by 60% and server load by 30%

Web Developer, Uunchai

May - July 2024

- Built Bhanu, an AI powered Nepali folk story-recitation web app and bot.
- Utilized Nextjs and tailwind. Optimized responsiveness and UX/UI
- Collected 3400+ folk stories via surveys and web-scraping. Fine-tuned Google Gemini. 600+ users monthly

Projects

CodeGaurdian | SonarQube, NextJS, PostgreSQL, Docker, Python, NodeJS, Git

- Developed a tool to monitor and flag declining code quality in open-source repositories.
- Integrated SonarQube to analyze code quality, identifying bugs, and code complexity. Stored data in PostgreSQL for historical trend analysis and reporting.
- Built robust APIs in Node.js. Automated repository initialization with Python and Git scripting

Zappi | Kafka, NodeJS, NextJS, TurboRepo, Typescript, Prisma

- Developed an automation tool like zapier using Turbo Repo for efficient monorepo management
- Implemented real-time event streaming with Kafka to ensure seamless data flow. Engineered API integrations using webhooks for smooth automation workflows
- Built backend services in Node.js with Prisma ORM for streamlined data modeling. Utilized PostgreSQL as the database for scalable and efficient data management

Ask Things | NextJS, Tailwind, ShadCN, ClerkAuth, MongoDB, Python, Typescript

- Built a Next.js-powered social platform. Developed around 13,000 lines of code using reusable components for scalability and maintainability
- Leveraged MongoDB for efficient data management, and integrated Clerk-Auth for secure user authentication. Utilized ShadCN and other tools to enhance UI/UX and streamline development.

Hamro Chess | ReactJS, NodeJS, TypeScript, Tailwind, WebSockets

• A React and Node is multiplayer chess platform. Used native websockets for real time communication.

Foodier | CNN, Tensorflow, Python, Colab

- Built and trained a Food image Classifier using Deep Learning Convolution Neural Networks(CNN) in Tensorflow
- Used transfer learning and fine-tuned the EfficientNet model on 101 classes of food items

Diapred | SVM, Scikit-learn, Python, Colab

- Built and trained a Diabetes prediction ML model using SVC (Support Vector Classifier) in scikit learn.
- Used kaggle dataset of 100,000 plus record size. Ran data cleaning, preprocessing, and EDA. Achieved an accuracy score of 96% on the test set.

TECHNICAL SKILLS

Languages: JavaScript, Typescript, C++, Python, Java, Kotlin, SQL, Git, Docker

 $\textbf{Web/App Developement}: \ \text{Next.JS}, \ \text{React.JS}, \ \text{React Native}, \ \text{Tailwind}, \ \text{NodeJs}, \ \text{Django}, \ \text{NestJS}, \ \text{MongoDB}, \ \text{Postgresql}, \ \text{Firebase}, \ \text{Postgresql}, \ \text{Firebase}, \ \text{Postgresql}, \ \text$

Supabase, Convex, Prisma, Turbo Repo, Kafka, SonarQube, Zustand, Redux, TanstackQuery

Data science and Automation: Numpy, Pandas, Matplotlib, Scikit-Learn, Tensor-Flow, openCV, Langchain

Honors

Placed 6th in National Engineering Entrance Exam - IOE (#6/10,000+). Indian Compex Scholarship Qualifier (worth \$15,000+)