

Suman Thapa

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EDUCATION

Technische Hochschule Ostwestfalen-Lippe

M.Sc. Information Technology

Lemgo, Germany

2024 – Present

London Metropolitan University (in collaboration with Islington College)

BSc (Hons) Computing (First Class Honours)

Kathmandu, Nepal

2019 – 2022

RELEVANT EXPERIENCE

Innovate Tech

Associate Backend Developer

Kathmandu, Nepal

Jan 2023 – Mar 2024

- Working on scalable **microservices** to develop features for an digital learning platform (*My Second Teacher*)
- Developing RESTful **APIs** using **Express** and **Koa** frameworks.
- Building real-time chat system using **socket.io** library, enabling features like private messaging, group chat, and user status tracking.
- Utilizing **mongoose** library to interact with **MoongoDB** NoSQL database, including defining schema models, performing CRUD operations and implementing queries for data retrieval.
- Implementing **Sequelize** ORM model to communicate with **Postgresql**.
- Integarting **AWS** services like **Lambda**, **SQS**, and **SNS** to develop de-coupled and reusable application features.
- Conducting in-depth research on **Prosody**, a modern lightweight and extensible XMPP communication server, exploring its features and architecture.

Vairav Technology

Full stack software engineer

Kathmandu, Nepal

May 2022 – Dec 2022

- Contributed to the development of **Vairav Trident**, an AI-enabled **SIEM** solution with built-in detection capabilities and integrated **threat intelligence**, ensuring comprehensive security visibility and continuous threat mitigation.
- Developed scalable **microservices** that communicate over **gRPC** and **Kafka**.
- Developed **APIs** using **Apollo GraphQL**.
- Managed trigger based **CDC (Change Data Capture)** / **Audit** on sql databases like **postgresql**.
- Developed an interactive frontend implementing **data visualizations**, **CRUD operation** and **microservices state management** using **React Js** and **Elastic UI**.
- Implemented test case on previously written code using **cypress**.
- Occasional **automation script** development as per **SIEM** requirements.
- Implemented role based **authentication/authorization middleware** on backend services using **keycloak** as JWT provider.
- Implemented **Prisma ORM** model to communicate with SQL database and designated libraries to communicate with **noSQL databases** like **Elasticsearch**.
- Integrated **session management** on kibana.

Level 9 Tech

Backend Developer Intern

Kathmandu, Nepal

Aug 2021 – Nov 2021

- Learnt to build applications using Django Rest Framework (DRF) and PostgreSQL.
- Developed **RESTful APIs** for learning management system and airlines booking.
- Acquired **unit testing** concepts and performed unit testing on developed APIs.

SKILLS

Programming Languages: TypeScript, JavaScript, Python, SQL.

Technologies & Frameworks: Node.js, Express.js, Koa, GraphQL, AWS, REST API, React, ELK stack, Grafana, Git, Docker.

PROJECTS

Cricket match prediction using Machine Learning | [GitHub](#)

- Developed a machine learning model for forecasting the outcome of a cricket match.
- Used decision tree classifier to develop the predictive model with key input features such as match timing, toss winner, venue, and more.

greenroots (Final Year Project) | [GitHub](#)

- A plant based mobile application built using Flutter and Django Rest Framework (DRF).
- Has plant scanning, smart weather check, and water reminder features.
- Allows users to browse and buy plants.
- Implements JWT authentication enhancing user security with essential features, including password recovery, email functionality, and secure logout.

JWT Authentication API in Express JS | [GitHub](#)

- An authentication system APIs for user registration, login, forgot password, change password, and logout.
- Used MongoDB for storing and fetching users data.
- Implemented mail delivering feature using nodemailer package.