# Gaurav Neupane

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### **Summary**

Experienced Python Developer with over 4 years having a deep understanding of Backend, Cloud Computing and Artificial Intelligence. Hands-on experience with AWS and tools such as Docker, and PostgreSQL. Demonstrated ability to optimize performance and deliver high-quality software using agile methodologies.

### **Experience**

#### Yarsa Labs | Pokhara, Nepal

#### **Back-End Engineer**

2022- 2023

- Developed a B2B E-commerce application system using NestJS, TypeScript, and AWS.
- Utilized PostgreSQL, Minio and Keycloak for building backend systems for B2B and gaming applications.
- Worked on a backend system supporting 100M+ downloads for real-time gameplay features.
- Optimized the backend for the games using MongoDB aggregation pipelines, and Redis implementation.
- Optimized API to search products and vendors by 15% using Apache Solr.
- Developed a background removal AI system using Python and Computer Vision.
- Participated in requirements discussion, sprint planning, development, testing, code reviews and retrospectives.

### Bottle Technology | Kathmandu, Nepal

## **Back-End Engineer**

2021 - 2022

- Collaborated with an 8-member team to develop a Fintech application for a trading company.
- Build 100+ APIs using Fast API, Pandas, AWS lambda, EC2, S3, API Gateway, Cognito, CloudFront, CloudWatch, and Docker.
- Worked on scraping the data from various sites using Beautiful soup, and Selenium.
- Deployed handwritten signature extraction and user detail extraction systems using Textract, Tensorflow, OpenCV and Docker.
- Deployed ML models on Docker, and EC2 using FastAPI and Python.
- Participated in requirements discussion, sprint planning, development, testing, code reviews and retrospectives.

### Inspiring Lab | Kathmandu, Nepal

### **Software Engineer(AI)**

2020 - 2021

- Developed AI-based applications such as RTVTR (vehicle surveillance system) and Pollen Sense AI.
- Improved accuracy of the RTVTR system by 5 % using ONNX and YOLO.
- Enhanced Pollen Sense accuracy by 2% with transfer learning.
- Deployed Computer vision-based project on Nvidia Jetson TX2.
- Build APIs for the RTVTR using FastAPI, Docker, AWS, and Websocket.
- Developed a data ingestion pipeline for training recently captured data.

## Yarsa Labs | Pokhara, Nepal

## **Artificial Intelligence Intern**

2017-2018

- Developed ML-Agents for Unity-based games.
- Researched AI applications in gaming industries.

#### **Skills**

Languages: Python, TypeScript Databases: PostgreSQL(SQL), MongoDB(NoSQL), Redis

AI: Computer Vision, Tensorflow, Scikit-learn, Numpy, Pandas, Matplotlib

Tools: AWS, Git, Docker, Kubernetes, Selenium, Beautiful soup Keycloak, Minio, CI/CD

Architecture: Rest API, Neural Networks

Back End: FastAPI, NestJS Search Engines: Apache Solr

### **Education**

## **Master of Science in Computer Science**

Maharishi International University, Fairfield, Iowa

# **Bachelor of Science in Computer Science and Information Technology**

Tribhuvan University, Pokhara, Nepal

### **Certifications**

**Neural Networks and Deep Learning** 

Coursera

**Finetuning Large Language Models!** 

DeepLearning.AI

**Generative AI for Everyone** 

DeepLearning.AI

**LangChain for LLM Application Development!** 

DeepLearning.AI

**Machine Learning** 

Coursera

Functions, Tools and Agents with LangChain!

DeepLearning.AI

**Knowledge Graphs for RAG!** 

DeepLearning.AI