



## Rohit Sapkota

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### EDUCATION

#### CURTIN UNIVERSITY, AUSTRALIA

February 2022-June 2024

Masters of Computing (Major in Computer Science)

### TECHNICAL SKILLS

- Generative AI
- LLMs
- Python
- Tensorflow
- Java
- Springboot
- SQL/PostgreSQL
- Git version control
- RestAPIs and GraphQL
- Linux
- Docker
- Kubernetes
- AWS
- CI/CD
- Ansible
- Bash/Shell Scripting
- Infrastructure as Code
- Javascript

### PROFESSIONAL EXPERIENCE

#### RACING AND WAGERING WESTERN AUSTRALIA (RWWA)

Feb 2023 - Present

##### DEVOPS ENGINEER

- Optimized GitLab CI/CD pipelines with Bash, collaborating with cross-functional teams, and providing expertise in Git, GitLab, JFrog Artifactory, AWX/Ansible, and CICTL (internally developed Python-based automation tool).
- Led migration of the company's largest tech repository from self-managed GitLab to GitLab SaaS using custom shell scripts, ensuring seamless AWS connectivity.
- Automated change request workflows in GitLab CI using CICTL, integrating Jira Cloud APIs and GraphQL to enhance Jira Service Management efficiency.
- Developed a Python-based AWS Lambda function to automate the monitoring of AMI updates for Windows and Linux instances, eliminating manual checks and triggering build pipelines for customization.
- Managed Kubernetes infrastructure on AWS EKS (GitLab runners, JFrog Artifactory, Rancher, AWX), ensuring high availability and seamless operations.
- Built and deployed an Alpine-based Docker image for GitLab CI runners, optimized for .NET projects, streamlining the build and deployment process.
- Contributed to R&D for system modernization, assessing emerging technologies to enhance infrastructure scalability, performance, and operational efficiency.

#### INFODEVELOPERS PVT. LTD. NEPAL

November 2020 - March 2022

##### SOFTWARE ENGINEER

- Led Agile-driven project iterations, ensuring timely delivery of milestones and continuous development improvements.
- Developed a Java Spring Boot solution to automate government workflows, reducing manual processes by 80%.
- Designed and implemented RESTful APIs, enhancing system integration and enabling seamless interoperability across platforms.
- Integrated digital signature functionality, securing sensitive data and preventing tampering during transmission.

- Collaborated with cross-functional teams to deploy a microservices-based architecture, optimizing scalability and performance for web and mobile platforms.
- Developed a food ordering management system using Java, JSP, and Servlets, improving order processing efficiency and user experience.

## CERTIFICATIONS/Credentials

- AWS Certified AI Practitioner - *Amazon Web Services* April 2025
- Improving Deep Neural Networks: Hyperparameters, Tuning, Regularization and Optimization - *DeepLearning.AI* April 2025
- Neural Networks and Deep Learning - *DeepLearning.AI* March 2025
- Generative AI with Large Language Models - *DeepLearning.AI, Amazon Web Services* March 2025
- CCNA: Enterprise Networking, Security and Automation - *Cisco* June 2024
- CCNA: Switching, Routing, and Wireless Essentials - *Cisco* June 2024
- CCNA: Introduction to Networks - *Cisco* June 2024
- Linear Algebra for Machine Learning and Data Science - *DeepLearning.AI* January 2024
- Foundations of Project Management - *Google* December 2022
- Learning How to Learn - *Deep Teaching Solutions* December 2022
- Python Programming: A Concise Introduction - *Wesleyan University* December 2022
- Curtin Leaders Program - *Curtin University* November 2022
- Google Cloud-Scientific Data Processing - *Google Cloud Skills Boost* May 2019
- Google Cloud-Baseline:Data, ML, AI - *Google Cloud Skills Boost* March 2019

## PROJECTS

### ANOMALY DETECTION IN IOT DEVICES USING FEDERATED LEARNING (*Curtin University*)

Centralized models for anomaly detection in IoT proved impractical due to the scarcity of publicly available security datasets. To resolve this, a federated learning architecture was designed, allowing model training across devices while preserving user data privacy by transmitting only aggregated model weights to a central server. This solution, validated with TensorFlow's Federated Core framework, enables the use of high-security datasets while ensuring data confidentiality.

#### TECHNOLOGIES USED:

- Python
- Tensorflow (Federated Core)

### GAMBLING HELP CHAT BOT (*RWWA Hackathon 2023*)

Created a chatbot providing a safe, anonymous space for individuals struggling with Gambling addition, offering tailored suggestions and enabling users to express their concerns freely.

#### TECHNOLOGIES USED:

- Gen AI/ Generative Artificial Intelligence
- Python
- LLM: gpt-3.5 Turbo
- Streamlit
- Prompt Engineering

### GOVERNMENT INTEGRATED OFFICE MANAGEMENT SYSTEM (GIOMS) (*Infodeveopers*)

Government organizations in Nepal relied on multiple disparate systems for tasks such as employee attendance, document creation, approval, and management, with separate systems for office and employee data. Additionally, much of the work remained paper-based, and existing systems were not equipped for full digitization. This system

was developed to integrate these functions into a unified solution, designed for adoption across all government offices in Nepal.

**TECHNOLOGIES USED:**

- Microservice Architecture
- Java, Springboot Framework
- API based system (RESTful API)
- Digital Signature
- Keycloak and Single Sign On
- PostgreSQL database