

Sunil Thapa

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SUMMARY

With over three years of commercial experience, Sunil is a Software Engineer skilled in developing and implementing robust software solutions. He primarily works with Python and Django. What sets Sunil apart as a developer is his proven ability to engineer scalable and testable code, his track record of boosting revenue and cutting costs through innovative solutions, and his experience in deploying machine learning systems and automated deployment pipelines. His proudest project is developing and implementing a similarity-based recommendation system for an online food ordering platform, which resulted in a 75% revenue increase through highly testable code design.

SKILLS

- Python, Django, LLM, RAG, JavaScript, TensorFlow, Keras, Scikit-Learn, NumPy, Pandas, Git, Docker, PowerBI, Matplotlib, Seaborn, Agile, Scrum, MySQL, SQL, MongoDB, AWS, GCP, Programming Languages, SQL Database, Relational Database

PROFESSIONAL EXPERIENCE

AGILEPITCH – Ireland, Remote

AI Engineer

Apr 2017 – Present

- Implement machine learning models and algorithms, specializing in Large Language Models (LLMs) and Retrieval-Augmented Generation (RAG) techniques.
- Improve Traditional RAG with self-corrective RAG, resulting in a 28% increase in document retrieval factual accuracy.
- Build and maintain robust data pipelines to ensure the smooth ingestion, transformation, and processing of large datasets from various sources, improving data processing speed by 35%.
- Optimize models for retrieving data from various sources, ensuring they meet business requirements and deliver high-quality results, resulting in a 30% increase in model performance.
- Leveraged AWS S3 for scalable storage, Lambda for serverless compute functions, and CloudWatch for monitoring and logging, improving system reliability and operational efficiency by 13%.

MAGDOTNET – Singapore, Remote

Software Engineer

Apr 2022 – Aug 2022

- Integrated REST API and web-hook services on an online vehicle booking system using core programming languages, enhancing client accessibility and improving customer usage by 53%.
- Implemented a similarity-based recommendation system for an online food ordering platform, resulting in a 75% revenue increase through highly testable code design.
- Engineered an automated deployment pipeline for Docker containers on Amazon ECS, enhancing system scalability and reducing response time by 16% through efficient programming.
- Conducted root cause analysis on internal and external data using SQL Database, identifying opportunities for process improvement, resulting in a 20% efficiency gain.
- Utilized Git for version control, ensuring collaborative and efficient development processes across the team, reducing integration conflicts by 40%.
- Integrated Google Maps API to provide location-based services and interactive maps within the web applications, enhancing user experience and functionality.

INFODEVELOPERS – Sanepa, Nepal

Software Engineer

June 2019 – Mar 2022

- Designed and implemented a machine learning system for inventory management with over 96.3% accuracy, reducing inventory costs by 25% through optimized coding practices.
- Developed a face-attendance system with a primary focus on relational databases using SVM and OpenCV, achieving 95% accuracy and increasing attendance tracking efficiency by 40%.
- Worked closely with cross-functional teams to gather data requirements and translate them into technical solutions using core programming languages, enhancing project delivery by 45%.

- Experienced in building and optimizing big data systems to support data extraction, transformation, and loading with SQL and relational databases, improving data processing speed by 25%.
- Implemented Flask-based web applications with Ajax for dynamic content updates, enhancing user interaction and responsiveness.
- Automated testing using Selenium for web application testing, reducing testing time by 30% and improving test coverage and reliability.
- Applied Computer Vision techniques for real-time video analysis and processing in projects requiring object detection and tracking, improving processing efficiency by 35%.
- Utilized Natural Language Processing (NLP) for sentiment analysis and text processing tasks, enhancing data insights and user interaction in applications.

EDUCATION

Lambton College – Toronto, Canada

Sept 2022 – Apr 2024

Post Graduate, Artificial Intelligence and Machine Learning

Dean's List (2023, 2024)

University of Northampton – Nepal

Sept 2016 – July 2019

Bachelor of Science, Computing (Software Engineering)

First Class with Honors; Dean's List (2019)