

Kusal Nayanajith

Software Engineer

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Personal Statement

A dedicated and hardworking individual with hands-on experience in backend, frontend, and AI development, specializing in backend solutions. Eager to launch a career as a Software Engineer, I am capable of quickly adapting to new technologies and proficient in crafting scalable systems with a strong focus on clean code and efficient performance, ready to contribute my level best to an organization.

Education

University of Moratuwa

B.Sc. (Hons) in Information Technology

- CGPA: 3.1

Moratuwa, Sri Lanka

July 2021 – Aug 2025

Matara Central College

G.C.E. Advanced Level Examination (2019)

- Biology- A, Physics- B, Chemistry- B (Z - Score : 1.5129)

Matara, Sri Lanka

Feb 2010 – Aug 2019

G.C.E. Ordinary Level Examination (2015)

- 7A Passes 2B Passes (ICT - A)

Experience

Software Engineer Intern

Aventure IT Solution (Pvt) Ltd

Colombo, Sri Lanka

Feb 2024 – Aug 2024

- Contributed to multiple software projects (NearIT, KPI Score, Job Ninja), gaining hands-on experience in backend, frontend, and AI development.
- Developed and optimized Python Flask backend APIs for the NearIT project, including sourcing, validating, and utilizing country-location based datasets to train a model for postal location identification.
- Replaced an existing UI library with a new solution for better integration, resolving critical UI bugs and enhancing user experience.
- Conducted R&D on the Job Ninja project, collaborating with clients and team leads to identify strategic opportunities for AI integration to enhance project efficiency and effectiveness.
- Actively engaged in daily scrum meetings and participated in critical client discussions, including design review meetings and product presentations, gaining valuable insights into product development and client engagement.
- Technology Stack: **Python Flask, Firestore, React js, Google Colab, Github**

Projects

Production-Ready Patient Management System with Microservices

Individual Project

Apr 2025 – On-going

[github](#)

- Developed a microservices-based patient management system featuring dedicated services for Patient, Billing, Analytics, and Authentication.
- Implemented inter-service communication using gRPC and Apache Kafka for robust data flow.
- Engineered a centralized API Gateway with JWT-based authentication for secure and efficient request routing.
- Containerized all services with Docker, explored AWS infrastructure deployment using LocalStack & CloudFormation.
- Technology Stack: **Spring Boot, gRPC, Apache Kafka, Docker, PostgreSQL, GitHub**

NearIT

Feb 2024 – Aug 2024

Internship Team Project | Aventure IT Solution (Pvt) Ltd

[nearit.ai](#)

- Developed a scalable geolocation API designed as a shared library to support multiple internal projects across various countries, including Australia, New Zealand, and Singapore, among others.
- Engineered backend services, integrating diverse multi-country datasets and optimizing search functionalities for high performance.
- Contributed to AI model training and geo data validation to accurately identify nearest postal locations.
- Technology Stack: **Python Flask, Firestore, Bitbucket, Google Colab**

Vehicle Valuation and Buying and Selling System

Oct 2022 – Sept 2023

Industry based Software Project | Ceynocta (Private) Limited

[azure/Miraculertz](#)

- A system for vehicle evaluators to assess vehicles for leasing, centralize valuers, and facilitate buying and selling through web and mobile applications.
- Contributed as a Full Stack and Mobile Developer, working on ASP.NET backend, Flutter mobile app, MSSQL database, creating Figma designs for the system, JWT based authentication and version controlling via Azure DevOps.
- Technology Stack: **ASP.NET, Flutter, MSSQL, Azure DevOps**

Intelligent Person Tracking System within a Multi-CCTV Network

Oct 2024 – July 2025

Final Year Research Project

- Developed a comprehensive system for person identification, path tracking, and suspicious activity detection across a multi-CCTV network.
- Responsible for person detection: Implemented detection capabilities across various environmental conditions.
- Generated and stored visual profiles in a MongoDB database for efficient person re-identification within the network.
- Technology Stack: **YOLOv8, OSNet, DeepSORT, MongoDB**

Technical Skills

Languages: Java, C#, Python, SQL, JavaScript

Frameworks and Libraries: .NET, Spring Boot, React js, Next js, Flask

Other Technologies: HTML, Entity Framework, CSS, Tailwind CSS, gRPC, Kafka

Database Systems: MySQL, MSSQL, MongoDB, PostgreSQL

CI/CD & Cloud Tools: Git, Docker, Azure DevOps

Machine Learning: TensorFlow, YOLO, OpenCV, NumPy, PyTorch, Scikit-learn

Related Academic Studies

Software Engineering Methods
Object Oriented Programming
Data Structures & Algorithms
Enterprise Application Development [🔗](#)

Object Oriented Analysis & Design
Database Management Systems
Software Quality Assurance [🔗](#)
Artificial Intelligence

References

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