

Ahamed Akmal Ali

Software Engineer



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📍 Kalutara, Sri Lanka portfolio

PROFILE

I am a passionate software engineer who thrives on solving problems and building innovative solutions with a keen interest in Natural Language Processing, computer vision, and task automation. I'm a fast learner, a dedicated team player who loves breaking down challenges. When I'm not coding, you'll find me exploring new ideas, automating my to-do list, or watching mixed martial arts.

CERTIFICATES

AWS Cloud Technical Essentials —
Amazon Web Services |

Machine Learning for Natural Language Processing — AWS Academy |

Neural Networks and Deep Learning —
Deeplearning.ai |

Feature Engineering — Online course,
offered by Kaggle |

Chartered Institute of Management Accounting (CIMA) — Certificate and
Operational Levels |

ChatGPT Prompt Engineering for Developers — Online course, offered by
Deeplearning.ai

EDUCATION

BSc Eng Hons, Computer Science and Engineering,
University of Moratuwa
07/2021 – present

- **Final year undergraduate**

D.S. Senanayake College, Cololombo 07

2011 – 2019

- G.C.E A/L 2019: 3 A Passes (Physical Science Stream) | Island Rank : 243
- G.C.E O/L 2016: 9 A Passes

PROFESSIONAL EXPERIENCE

Trainee, Software Engineering,

CodeGen Internation (Pvt) Ltd.

12/2023 – 06/2024 | Colombo, Sri Lanka

- Contributed to developing and deploying innovative software solutions across diverse domains, gaining hands-on experience in full-stack development, real-time systems, and machine learning while ensuring system scalability.

Visiting Instructor, Department of Computer Science and Engineering, University of Moratuwa

06/2024 – present

- Assisted semester 5 students in building end-to-end DSE projects and evaluated them under the supervision of Dr. Thanuja Ambegoda.
- Conducted lab sessions and Created programming Assignments for semester 2 students under the supervision of Dr. Nisansa De Silva.

Web-site developer,

Majlis-ul-Islam, University of Moratuwa

07/2023 – present

- Collaborated to design, develop, and deploy the official website for Majlis-ul-Islam ensuring smooth user experience.

PROJECTS

AccoMind - Research & Development Project

06/2024 – present

- Developed a state-of-the-art RAG system to extract actionable insights from unstructured, long-context financial data. The system is designed to serve diverse stakeholders by fine-tuning small language models using the LoRA technique with dynamic parameter loading tailored to user roles.
- **Tech stack:** Python, NLP (Transformers, LoRA), Vector Databases (Chroma/ADA-2), Docling, HuggingFace

SKILLS

Programming Languages

Python, Java, C++, JavaScript, TypeScript, SQL, Dart, Bash, Go

Machine Learning & Computer Vision

Scikit-learn, Pandas, OpenCV, Keras, YOLO, PyTorch, Supervision, Ultralytics

Data Visualization

Matplotlib, Seaborn

Databases

PostgreSQL, MySQL, MongoDB, Firestore, ChromaDB

Web & Mobile Development

HTML, CSS, SpringBoot, Django, Flutter, React, Angular, React Native, NodeJS, NextJS, ExpressJS

Development Environments & Tools

Git, Linux, Docker, VS Code, GCP, AWS, Vercel, HuggingFace, GitHub Actions, Kron, Postman, Swagger

PERSONAL SKILLS

Teamwork | Leadership | Adaptability | Problem Solving | Communication

INTERESTS

Full-stack Development | Computer Vision | Natural Language Processing | DevOps | Mixed Martial Arts

REFERENCES

Dr. Thanuja Ambegoda, Senior Lecturer, Department of Computer Science & Engineering, University of Moratuwa
thanuja@cse.mrt.ac.lk

Lashan Wanniarachchi, Associate Tech Lead, CodeGen International Pvt Ltd
lashan@codegen.net

Work-site Safety Compliance System

01/2024 – 05/2024

- A robust edge-based solution deployed on a CCTV system at a worksite with 1000+ workers that monitors worker activities and ensures compliance with safety regulations, providing alerts for any violations.
- **Tech stack:** Python, Computer Vision (Object Detection, Keypoint Detection), Nvidia Jetson, Websockets

Action Recognition in the Dark for CCTV

08/2023 – 11/2023

- Developed a system for action recognition in near pitch-black conditions by employing computer vision techniques to enhance the visibility of video streams and analyzing key-point displacements in adjacent frames on a CCTV system to detect suspicious behavior, ensuring improved detection accuracy in low-light environments.
- **Tech stack:** Python, Computer Vision (Deep Neural Networks, CLAHE), YOLOv8, Flask

Reservation Management System

05/2024 – 06/2024

- Developed the front-end of a custom Reservation Management System to streamline and enhance the process of managing table reservations at restaurants for a leading restaurant chain in Sri Lanka.
- **Tech stack:** Flutter, Dart, Flutter BLoC, Web-sockets

Majlis-Ul-Islam website

01/2024 – present

- Contributed to design, develop and deploy the official website for Majlis ul Islam, University of Moratuwa ensuring smooth user experience. Set up a pipeline to ensure continuous integration and deployment.
- **Tech stack:** Next.JS, Contentful API, GitHub Actions, Vercel

Employee Attrition Analysis

06/2023 – 07/2023

- Conducted comprehensive data analysis and pre-processing on a complex employee dataset, leveraging Python and data science libraries. Provided valuable insights and predictive analytics, contributing to enhanced employee retention strategies.
- **Tech stack:** Python, Matplotlib, Statistics, Data Analysis