Ahamed Akmal Ali

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📍 Kalutara, Sri Lanka

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 and 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
SpringBoot, HTML, CSS, Flutter, React, Angular, React Native, Node.JS, Express.JS, Next.JS, Django

Development Environments & Tools
Git, Linux, Docker, PyCharm, VS Code, Postman, Swagger, GCP, AWS, GitHub Actions, Kron, HuggingFace, Vercel

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*