Ishrath Ahamed

ishrathahamed0@gmail.com | +94 77 147 6789
www.linkedin.com/in/ishrathahamed | github.com/ishrath99

Experience

Software Engineer Jun. 2024 – Present
Cloud Solutions International (Pvt) Ltd *Sri Lanka*

- Tech stack: Python, Django, Java, Spring Boot, Kubernetes, Docker, Jenkins, Liquibase, ArgoCD, Neo4j
- Build agentic workflows integrating MCP servers with Neo4j graph databases
- Lead QA environment setup and manage Kubernetes deployment and infrastructure dependencies
- Build Django-based applications to manage and track release dependency data
- Automate release pipelines and data migrations using Jenkins, Liquibase, and ArgoCD pre/post-sync jobs
- Develop EHR microservices such as EMPI using Java and Spring Boot

Visiting Research Fellow Jan. 2023 – Jun. 2023
Singapore University of Technology and Design *Singapore*

- Tech stack: Python, TensorFlow, Keras, openCV
- Solving real world problems in the domain of surveillance using computer vision and deep learning techniques

Intern - Software Engineer Jan. 2021 – Jun. 2021
Kairos Sensing *Sri Lanka*

- Tech stack: Java, C++
- Sri Lanka's first IMU sensor based 3D motion capturing system

Education

University of Moratuwa Sri Lanka
B.Sc.(Hons) Biomedical Engineering *Jan. 2020 – Jun. 2024*

- Cumulative GPA: 4.04/4.20 | Firts Class (Honours)

Royal College, Colombo - 07 Sri Lanka
G.C.E. Advanced Level Examination (Physical Science) *Jun. 2016 - Aug. 2018*

- Z-Score: 2.4 (3As) | Ranked 83rd in the country

Publications

Real-Time AI-Driven People Tracking and Counting Using Overhead Cameras | IEEE-Explore 2024
Presented in TENCON 2024 - 2024 IEEE Region 10 Conference (TENCON) - Singapore

Selected Projects

TwinDoctor Ongoing
Agentic workflow platform leveraging A2A and MCP tools with graph-based data management

- Designed and implemented agentic workflows integrating A2A and MCP servers for healthcare microservices
- Modeled and managed complex relationships using Neo4j graph database to enable intelligent data retrieval
- Contributed to the open-source Agno library to extend the docker functionality for MCP servers
- Tech Stack: Python, Neo4j, MCP, A2A, Agno

Orodruin 2025
Django-based application for release automation of microservices

- Designed and implemented the database schema to store release dependency data
- Developed Jenkins pipelines to automate integration and deployment of release dependency data
- Built a user-friendly web interface for development teams to manage and update dependency data
- Tech Stack: Python, Django, Groovy, JavaScript, HTML

Data Migration Initiator 2024/2025
Python-based automation tool for database and configuration migrations on releases

- Automates data migrations including Liquibase schema changes, master data, configurations, and feature toggles

- Python scripts executed in ArgoCD pre and post-sync jobs for seamless release automation
- Tech Stack: Python, Liquibase, ArgoCD

Custom computational microscope design and 3D image reconstruction | github 2024

Finaly year project in collaboration with Dr. D. Waddwage - Harvard University - USA

- Exploring deep learning techniques to solve ill-posed linear inverse problem of 3D image reconstruction
- Modelling of optics inspired imaging system
- Tools: Python, MATLAB, pytorch

Illegal activity recognition | github 2023

Activity recognition model to identify illegal activities in housing schemes in Singapore

- 3D CNN based video classification on edge devices
- Data pre-processing and overall algorithm development
- Tools: Python, tensorFlow, Keras, openCV

Face recognition | github 2023

A Face recognition system to improve security in switch rooms of housing schemes in Singapore

- Deep learning based face embedding retrieval
- Face feature analysis to improve the accuracy of the system
- Tools: Python, tensorFlow, Keras, openCV

Computationally-efficient people counting system | github 2023

A light-weight, low-cost and accurate people counting system for edge devices

- Designing of object tracking algorithm
- Model compression techniques to speed up live inference
- Tools: Python, tensorFlow, Keras, openCV

Walksense - 3D Motion capturing system | github 2021

Sri Lanka's first low cost 3D motion capturing system for the whole body

- Configure YOST IMU sensors to read wireless data
- Develop main motion analysis algorithms and functional algorithms in the software
- Tools: Java, C++, NetBeans

SINDiB - Micromouse | github 2023

Micromouse project developed for RoboFest 2023

- Integration of flood-fill algorithm to the hardware (STM32 microcontroller)
- Configuration of motors and Interfacing OLED display via SPI communication
- Tools: C, C++, STM32CubeIDE

Single-cycle RISC-V processor 2023

32 bit Single-cycle CPU based on RV32I RISC-V ISA integrated with a direct mapped cache

- Control logic and microarchitecture design
- Implementation of modules using verilog
- Tools: Verilog, QuartusPrime

Skills

Programming Languages: Python, Java, MATLAB
Frameworks & Libraries: Django, Spring Boot, Liquibase, Agno, React, Angular
Databases: PostgreSQL, Oracle, MongoDB, Neo4j, Redis
DevOps & Tools: Kubernetes, ArgoCD, Jenkins, Docker

References

Raditha Dissanayake – Software Engineering Consultant, Cloud Solutions International, Sri Lanka.
Contact: +94 77 756 2242, Email: raditha.dissanayake@gmail.com

Dr. Chamira Edussooriya – Senior Lecturer, University of Moratuwa, Sri Lanka.
Contact: +94 71 804 5768, Email: chamira@uom.lk