

Kavishka Jayasinghe

AI & ML | Software Engineer | Cloud & DevOps

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SUMMARY

Final-year Computer Engineering undergraduate (graduating November 2026) with six months of industry experience in Network Analytics and Automation at Dialog Axiata PLC. Delivered production multi-threaded Python automation services, Microsoft Fabric data pipelines, Power BI dashboards, and Azure DevOps CI/CD pipelines for large-scale telecom datasets. Combines strong software engineering fundamentals - backend APIs, full-stack development, databases, and system integration - with practical cloud, DevOps, firewall configuration, and machine learning capability. Already familiar with Dialog network data and internal tooling, enabling immediate contribution across engineering, data, or AI-focused teams.

Areas of Interest: Machine Learning, AI, Computer Vision, MLOps, Automation, Cloud, and Data Engineering.

PROFESSIONAL EXPERIENCE

Intern - Network Analytics and Automation

May 2025 - November 2025

Dialog Axiata PLC, Colombo, Sri Lanka

- Developed multi-threaded Python services automating cell activation and deactivation workflows, reducing manual network operations effort.
- Integrated Python automation services with Microsoft Fabric data pipelines for large-scale telecom data processing.
- Built Power BI dashboards for monitoring, visualising, and analysing network performance datasets.
- Developed automated data pipelines and relational database workflows to support the tracking of Eco-Cell-Off events.
- Managed GeoServer projects and network links using PostgreSQL geospatial data.
- Built Azure Logic Apps workflows automating OneDrive-to-Azure Blob Storage file transfers.
- Designed Azure DevOps CI/CD pipelines integrating SonarQube code-quality gates and Docker for automated delivery.
- Published and maintained reusable internal Python packages through Azure Artifacts, standardising code shared across teams.

Trainee Banker

February 2021 – June 2022

People's Bank, Dambulla Branch

EDUCATION

University of Ruhuna

2022 - August 2026

Bachelor of Science in Engineering (Computer Engineering)

TECHNICAL SKILLS

Programming: Python, Java, C, C++, JavaScript, TypeScript, SQL

Backend & APIs: FastAPI, Node.js, Express.js, REST APIs, Socket.io, JWT Authentication, Microservices

Frontend & Mobile: React, Next.js, React Native, Flutter, TypeScript

Cloud & Data Engineering: Microsoft Azure, Microsoft Fabric Pipelines, Azure DevOps, Azure Logic Apps, Azure Blob Storage, Azure Artifacts

DevOps & MLOps: Docker, CI/CD, SonarQube, Git, GitHub, Automated Testing & Deployment

AI & Machine Learning: Deep Neural Networks, GANs, Transformers, Generative AI

Data Science: Scikit-learn, TensorFlow, PyTorch, Pandas, NumPy, SDV, EDA, Feature Engineering, Hypothesis Testing, Model Evaluation & Optimization, Time Series Forecasting

Computer Vision: YOLO, SAM-HQ2, Object Detection, Image Segmentation, Image Preprocessing, OpenCV, Ultralytics

Databases: PostgreSQL (geospatial), MongoDB, MySQL, Firebase / Firestore

Data Visualisation: Power BI, Matplotlib, Seaborn, Streamlit

Security: End-to-End Encryption, Cryptographic Key Management, Secure Local Storage, JWT

PROJECTS

Eco-Cell-Off Automation & Monitoring Platform (Dialog Project)

Data Engineer / Python Developer

- Developed multi-threaded Python services to automate cell activation and deactivation workflows.
- Built Microsoft Fabric data pipelines and notebooks for preprocessing and monitoring Eco-Cell-Off events.
- Designed centralized database workflows and Power BI dashboards to drive operational visibility
- Technologies: Python, Microsoft Fabric, SQL, Power BI

Veritas - Blockchain-Anchored Academic Credential Issuance & Verification (Final Year Research)

Final Year Group Research Project / Backend, Cryptography / ML Developer

- Built a microservices-based academic credential platform with 11 Dockerised services, PostgreSQL, and Traefik for credential issuance, approval, and verification.
- Implemented WebAuthn-based countersignatures binding W3C Data Integrity proofs to biometric gestures, verified on real TPM hardware.
- Developed Merkle-tree batching and blockchain anchoring using RFC 6962 principles and Solidity smart contracts.
- Built a Python/FastAPI ML service for student academic risk prediction and integrated it into the lecturer dashboard.
- Technologies: Node.js, TypeScript, React, PostgreSQL, Docker, Traefik, Solidity, Ethers.js, Python, FastAPI, WebAuthn, JWT

Holon - Dynamic AI Scheduling Assistant

Full Stack / Machine Learning Developer

- Developed an intelligent scheduling platform managing study, gym, and exam commitments under hard constraints.
- Built a Node.js/Express.js backend with MongoDB for task, schedule, routine, authentication, and user behavior management.
- Developed a Next.js dashboard and Flutter mobile client supporting natural-language and voice-based scheduling.
- Implemented a Python ML service for learning focus patterns, predicting focus scores, and generating personalized explanations.
- Technologies: Python, Node.js, Express.js, MongoDB, Next.js, Flutter, FastAPI, Machine Learning, REST APIs

Automated Car Parking and Management System

Machine Learning / Computer Vision Developer

- Developed an end-to-end license plate detection and segmentation pipeline for automated parking access.
- Applied Day/Night classification, CLAHE, and Gamma Correction to improve image quality in poor lighting.
- Fine-tuned YOLO for license plate detection and integrated SAM-HQ2 for pixel-level segmentation masks.
- Technologies: Python, YOLO, SAM-HQ2, OpenCV, PyTorch, NumPy, Ultralytics

CERTIFICATIONS

- Azure Administrator Associate (AZ-104) - In Progress

EXTRA-CURRICULAR ACTIVITIES

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|--|---|----------------|
| • Member, Music Society | Drama Society , University of Ruhuna | 2023 – Present |
| • Member, Powerlifting , University of Ruhuna | | 2022 – Present |
| | – Inter Faculty Champion – 74 kg Category, 2026 | |
| • Member, Prefect Board , GSC Matale | | 2017 – 2019 |
| • Member, Eastern Band , GSC Matale | | 2015 – 2019 |

REFERENCES

Mr. Pasindu Bandara

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Dialog Axiata PLC
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