

ETHAN PERERA

AI & Data Science Undergraduate

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PROFESSIONAL SUMMARY

Enthusiastic Artificial Intelligence and Data Science undergraduate with practical experience in Machine Learning engineering, Agentic Workflows, and Full Stack Development. Proven track record in developing AI-driven automation tools, voice agents, and secure enterprise applications. Proficient in Python, Java, and cloud technologies (AWS), specializing in autonomous agents and LLM orchestration.

TECHNICAL SKILLS

- **Languages:** Python (Proficient), Java (Proficient), JavaScript, SQL, PHP, HTML, CSS, ABAP.
- **AI/ML & Data:** LangChain, LangGraph, Pipecat, OpenAI API, Anthropic, Gemini, Scikit-Learn, Pandas.
- **Frameworks & Web:** Spring Boot, React.js, Node.js, Flask, Django, Selenium, Playwright, Odoo.
- **Tools & Cloud:** AWS (EC2, S3, Redshift), Twilio, Docker, Git, PostgreSQL, MongoDB, Jenkins.

PROFESSIONAL EXPERIENCE

Altrium (PVT) LTD

AI & ML Engineer Intern

Colombo, Sri Lanka

May 2025 – Present

- **Planyear Project:** Developed agentic architectures for translation and summarization services using **Spring AI** and **MongoDB**; managed production pods via **Jenkins** as well as **lens**.
- Engineered autonomous agentic workflows and internal automation tools using **LangGraph** and **LangChain**.
- Integrated multi-LLM orchestration (Gemini, Anthropic, OpenAI) for complex task processing.
- Developed a voice-driven AI receptionist/lead agent using **Pipecat** and **Twilio** for automated client interaction.

Fardar Express Domestic (PVT) LTD

Software Developer (Contract)

Colombo, Sri Lanka

Feb 2025 – Nov 2025

- **ERP Development:** Engineered custom modules in **Odoo** using Python and PostgreSQL.

- **Attendance System:** Built a full-stack biometric tracking system integrating hardware with web frameworks.

Questas Global / BCS Technology

Customer Support Engineer

Colombo, Sri Lanka

Apr 2023 – Jan 2024

- Managed Active Directory groups and resolved enterprise RDP session issues for a global user base.

TECHNICAL PROJECTS

Project Open Eyes (AI Automation Suite)

- Developed a **LangGraph**-based automation suite that utilizes **Selenium** and **Playwright** to create autonomous agents capable of exploring websites and generating navigation steps dynamically.

Pipecat Voice Agent (AI Receptionist)

- Engineered a voice agent for Altrium that handles inbound calls via **Twilio** and **Pipecat**. The system acts as a digital receptionist to qualify leads and facilitate product transactions for Sentiva.

FDE Finger Scanning System

- Designed and deployed a fingerprint attendance system using **PHP** and **Django**, integrating **ZKTeco** hardware to track and manage employee attendance records accurately.

LinkedIn Data Scraping Tool

- Built a specialized web scraping tool using **Python** and **Selenium** to automate the extraction of professional data and profile insights from LinkedIn.

EDUCATION

Robert Gordon University (via IIT)
BSc (Hons) Artificial Intelligence and Data Science

Colombo, Sri Lanka
2023 – 2027

- **Foundation Achievement:** Distinction in the IT foundations degree program
- **General Achievements:** Highest grade in batch for AI coursework in second year

Gateway College
Pearson's Qualification in Computer Science

Colombo, Sri Lanka
2009 – 2022

- **Achievements:** 3 A*'s in Math, Computer Science, and Psychology at Ordinary Level.

ACADEMIC PROJECTS

AWS Data Engineering Pipeline

- Designed an ETL pipeline using **AWS Lambda, S3, and Redshift** for weather data analytics.

Bank Marketing Prediction Model

- Developed Neural Network and Random Forest classifiers with **PCA** and **SMOTE** for class balancing.

REFERENCES

Thushara Perera
Network Lead at Wiley
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Lecturer at IIT
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