





Janitha Rathnayake Systems Engineer

 jbrathnayake98@gmail.com

 Janitha Rathnayake

 JanithaB

 +94710641718

 Kurunegala



Professional Experience

Electronic Engineer, Vega Innovations (Pvt) Ltd

- Managed and maintained **AWS EC2 infrastructure**, DNS/domain configurations.
- Deployed and maintained **production MCP servers and backend services**.
- Operated **Linux/UNIX and NVIDIA Jetson platforms** supporting **production ML and edge AI systems**.
- Designed and implemented **MQTT-based edge-to-backend** data pipelines for reliable communication.
- Deployed **n8n workflows** on **Docker** to automate AI and data processes, and built AI agents using MCP-Use with LangChain integration.
- Streamlined workflows and defined best practices for system monitoring and maintenance.

01/2025 – Present

Maradana, Colombo

Research Engineering Intern,

SLIOT Design & Innovation Laboratory University of Moratuwa

- Developed and trained CNN models for sensor-based data analysis.
- Collected and processed experimental data from TENG devices.
- Assisted in sensor design and prototyping.
- Contributed to technical documentation and research papers.

08/2023 – 10/2023

Katubedda, Moratuwa

Engineering Trainee, Sri Lanka Telecom

- Gained hands-on experience in Switching, Transmission, and Planning divisions.
- Worked in ADSL, NC (Network Configuration), and Maintenance divisions.

05/2022 – 08/2022

OPMC - Kurunegala

Education

B.Sc (Hons) in Electrical & Electronics Engineering, University of Peradeniya

12/2019 – 08/2024

- GPA: 3.2/4.0
- Coursework: AI & ML, Communication Systems, Programming & Networking

G.C.E Advanced Level Examination (Physical Sciences), Maliyadeva College

07/2015 – 08/2017

- All 'A' passes for Combined Mathematics, Physics & Chemistry
- Z-Score: 1.8146

Skills

Technical Fields

AI & ML, Networking, IoT, Edge AI, Automation

Programming Languages

Python, C/C++, Java, JavaScript(Beginner)

Version Control

Git and Github

Operating Systems

Ubuntu, CentOS, Kali Linux, DietPi, Raspbian, Windows

Developer Tools

Visual Studio Code, IntelliJ IDEA, Cursor

Other

- AWS & Cloud:** EC2, Route 53; configured DNS for multiple domains.
- Networking & Security:** Nginx reverse proxy for load balancing, secure IoT integrations, firewall management.

Certificates

**Python Data Structures |
University of Michigan**
Coursera Certificate


**Neural Networks and Deep
Learning | DeepLearning. AI**
Coursera Certificate


**Learning Verilog for FPGA
Development | LinkedIn**
LinkedIn Certificate

Learning FPGA Development
LinkedIn LinkedIn Certificate

**Getting Started with RISC-V |
LinkedIn**
LinkedIn LinkedIn Certificate

**Introduction to the Internet of
Things and Embedded Systems**

Python Data Structures 
Coursera
Issued Nov 2020
Credential ID DKS2F6KM9NLK


Coursera
Issued May 2022
Credential ID T64GNCUVYSXC

Projects

Mentoring Platform Microservices with Spring Boot, *Ongoing*

- Built backend services for a mentoring platform with Java Spring Boot, microservices, and MVC; handled user registration, session scheduling, and mentor-mentee matching.

Technologies: Java | Spring Boot | Microservices | MVC

Spiking Neuron Architecture for Information Processing

- Implemented an efficient gradient descent approach in neural networks, optimizing training and computational cost; analyzed performance and potential improvements.

Technologies: Python | SNN Torch | PyTorch

Person Identification using Gait Pattern

- Built TENG sensors to capture gait data and trained a CNN model for analysis.
- Developed a Python GUI application to collect and manage gait data.

Technologies: Arduino | Python | CNN | TENG

Other Experiences

IEEE PES Peradeniya Students' Chapter | University of Peradeniya., *Chair Person* 07/2023 – 09/2024

IEEE PES Peradeniya Students' Chapter | University of Peradeniya., *Vice Chair* 05/2022 – 07/2023

IEEE PES Peradeniya Students' Chapter | University of Peradeniya., *Volunteer* 01/2022 – 05/2022

- Participated in IEEE PES APPEFC 2023 held in Chiang Mai, Thailand, alongside the IEEE R10 Chapter Chair meeting.
- Currently volunteering in Professional Activities IEEE PES SL Chapter

Languages

- English
- Sinhala

Declaration

I hereby declare that the above-mentioned information is accurate to the best of my knowledge and belief.



Janitha Rathnayake
28/12/2025