Linuk Perera

INTELLIGENT SYSTEMS ENGINEER

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Experience

Asha Securities | Intern AI & Data Analytics | Work-from-Home **May 2025 – Present**

- Quantitative Forecast Model Development – Research project optimized solution for Sri Lanka
- Financial Data Visualization Platform Development – Cut multi company comparison time by 90%
- LLM for unique user portfolio queries and financial data Development – Handles 40% of queries

Sri Lankan Airlines | On-the-job Trainee Engineer | BIA **June 2024 – January 2025**

- Business Processes Re-Engineering for the Engineering Department – Cut Audit times by 20%
- Design development and implementation of computerized Environmental Monitoring System for Aircraft Engineering facility – Cut manual evaluations by 100%
- DFDR/QAR (Blackbox) Readout Facility Development
- Development of solid-state aircraft Onboard Digital Publication Acquisition and Control system.
- Web-based Development for Engineering Digital Publications

Education

Master of Science in Electronic and Electrical Engineering | Anglia Ruskin University **2027**
School of Engineering and the Built Environment
Faculty of Science & Engineering
Professional Registration: CEng applicant (MIET, MIEEE)

Bachelor of Engineering (Hons.) in Electrical and Electronics | University of Hertfordshire **2025**
School of Physics, Engineering and Computer Science
Department Engineering and Computer Science

- Chairman of the Institution of Engineering and Technology on Campus NIT Chapter
- Represented Sri Lanka at the Future Technology Congress, Bangalore India
- Active Member of the Rotaract Club of SLTTC
- Active Member of the Toast Masters Club of SLT
- Secretary of the UH Students Council

Professional Graduate Diploma in IT | British Computer Society **2024**
Chartered Institute for Information Technology
Professional Registration: CITP applicant (MBCS)

Projects

- **Quantitative Forecast Model for Asha Securities (2025).** Research project utilizing Machine Learning to provide customized stock predictions, improved efficiency of the research department, decision support system. Supervised Machine Learning.
- **LLM & Financial Data Visualization for Asha Securities (2025).** Utilized Machine Learning to visualize and provide customized feedback for users, saved time for investment advisors. Transformers-LLM, PCA, React Framework

- **Neural Network Driven Augmented Reality for Gesture Control (2024-2025)**. Research project on Gesture control using Machine Learning. LSTM, Dense-NN, ST-GCN, Python, C#
- **Personal Portfolio Webapp (2024)**. Smooth Scroll and Parallax Web app which describes my projects and career accomplishments, contains many animations and micro animations. Next.JS, JS, JSX, SCSS, C++, GASP, Framer Motion, Next.JS React Framework
- **Machine Learning based Trend Analysis WebApp for Wireless Frequency Monitor (2024)**. Easy to use webapp developed to predict frequency values and trends based on previous readings by utilizing Machine Learning. Python, CSS, C++
- **Environment Monitoring and Infographics System for Sri Lankan Airlines (2024).** Automation and Infographics system, that collects live data from sensors and generates Infographic Reports and warnings. C++, C, Python, Java, JavaScript, Node.JS, React.JS, HTML
- **Audio to MIDI Converter and Web App (2023-2024)**. Python based app that takes MP3 or Wav files as inputs and converts them into MIDI files using Fast Fourier transform integrated into a schemeless user interface, styled using CSS. Python, CSS
- **Wireless Frequency Monitor (2024)**. Frequency monitor that measures frequency and wirelessly updates any IOS Android or Windows device using Bluetooth and responds to user requests. C, C++
- **Business Processes Re-Engineering for Sri Lankan Airlines (2024)**. Streamlined and re-engineered engineering processes and created a Process Manual. Visio, PowerBI
- **DC Motor Control Power Electronics (2024)**. Utilized a H Bridge and a control circuit as a Variable Speed Drive for a DC motor Setup modeling its current & speed characteristics. C, C++
- **Colour Generation and Detection (2024).** Mbed NXP LPC 1768 and the Arduino Uno microcontrollers were used as development platforms, colour detection was done using the TSC 3200 colour sensor. C, C++
- **Acoustic camera trigger (2023)**. AC coupled operational amplifier, op-amp precision rectifier, Schmitt trigger, voltage regulator, use of operational amplifiers with a single supply rail, opto-isolators used to develop the circuit.

Certifications

Finance & Quantitative Modeling for Analysts | University of Pennsylvania

- Coursework: Quantitative Modeling, Corporate Finance, Mathematical Modeling

Financial Markets | Yale University

- Coursework: Behavioral Finance, 25 Assignments

Machine Learning Specialization | Stanford University

- Coursework: Supervised and Unsupervised Learning and Advanced Learning Algorithms

Economics of Money and Banking | Columbia University

- Coursework: Banking Systems 11 Assignments and Final Exam

Computer Science 50 (CS50) | Harvard University

- Coursework: C, Python, SQL, HTML, CSS, GitHub, 9 Problem sets and a Final Project

Volunteer of the Year | Institution of Engineering and Technology

- In recognition for volunteer activities that I have done across the year 2024

Skills & abilities

• Machine Learning	• Quantitative Modeling	• IOT
• Computer Vision	• Web Development	• Project Management
• HDL	• Communication	• Problem Solving