Savija Pasandul Kirihettige Don

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PERSONAL STATEMENT

Motivated mechanical engineering graduate with experience in CAD design, and data-driven engineering solutions. Skilled in mechanical design, programming, signal processing, and automation systems.

EDUCATION

CFA Program – Level I (In Preparation) **2027**
CFA Institute, Target Examination: August 2027

BEng Mechanical Engineering [2.1 Honours] **2025**
Nottingham Trent University, United Kingdom

Cambridge International A Levels – British Council Colombo, Sri Lanka **2021**

- **Mathematics A***
- **Chemistry A***
- **Physics A***

WORK EXPERIENCE

Front Office Executive: Receptionist & Concierge – Full-time **09/2025 to 09/2026**
GEM Hotels Ltd, UK

- Provided front-desk support, guest services, and administrative coordination in a high-traffic hotel environment
- Managed customer enquiries, bookings, and daily operations ensuring efficient service delivery

Research Assistant – Contract **05/2025 to 08/2025**
Nottingham Trent University, UK

- Developed AI-based non-contact respiratory monitoring system using YOLOv11 and 2D pose estimation
- Applied signal processing techniques (Butterworth, Kalman, EMA, Savitzky-Golay filters) for breathing signal extraction
- Calibrated system using spirometer data to improve measurement accuracy

Student & Events Ambassador – Part-time **06/2023 – 09/2024**
Nottingham Trent University, UK

- Coordinated student engagement events and supported university outreach activities
- Improved communication, organisation, and event management skills

Research Assistant – Contract **05/2024 to 08/2024**
Nottingham Trent University

- Conducted research on bionic leg optimization using real-time gait data.
- Utilized ROS Noetic, Gazebo, Xsens, and Response Surface Methodology to optimize control parameters, reducing oscillations and improving step consistency through statistical modelling.

Student Mentor – Part-time **09/2023 – 05/2024**
Nottingham Trent University, UK

- Supported students through academic and personal development workshops
- Strengthened leadership, mentoring, and communication skills

Data Analyst Intern – Contract **04/2022 – 08/2022**
KPMG Sri Lanka, Colombo

- Performed data analysis and visualisation using R
- Delivered insights through reports and presentations for business decision-making

KEY PROJECTS

AI-Powered Real Estate Automation System
Technologies: n8n, Airtable, OpenRouter AI, ElevenLabs, API Integrations, Conversational AI

- Built an AI-driven workflow to automate property enquiries, lead management, AI-powered property matching, voice interactions, and agent notifications, improving operational efficiency through intelligent automation.

AI Customer Feedback Classification & Routing System
Technologies: n8n, OpenRouter AI, Google Sheets, Gmail, API Integrations

- Developed an AI-powered workflow to automatically classify customer feedback and route notifications to the appropriate department using AI-driven text analysis and workflow automation.

Engineering Research Opportunity Scholarship (EROS) 2025 - AI-Powered Respiratory Monitoring System
Technologies: Python, YOLO11, OpenCV, Signal Processing, Computer Vision, Biomedical Engineering, AI

- Designed a non-contact respiratory monitoring system using computer vision and pose estimation
- Implemented signal processing pipelines (median filtering, EMA, Butterworth, Kalman, Savitzky-Golay) to extract breathing patterns
- Calibrated model outputs using spirometer data for improved physiological accuracy
- Developed prototype for potential telemedicine and early respiratory distress detection

Bionic Leg Optimization Using Real-Time Gait Data
Technologies: ROS Noetic, Gazebo, Xsens, Response Surface Methodology

- Optimised bionic leg control parameters using real-time gait feedback
- Reduced oscillations and improved motion stability using statistical modelling (Response Surface Methodology)
- Improved step consistency and system performance through iterative simulation testing

TOP SKILLS

Mechanical Engineering - CAD (Fusion 360, Auto CAD), Mechanical Design, Tolerance Analysis, Materials Science, Manufacturing Processes, Fluid Mechanics

Programming & AI - Python, JavaScript, Next.js, React.js, Computer Vision, Signal Processing & Machine Learning, Linux & Git / GitHub

Robotics & Automation – ROS Noetic, Gazebo Simulation, Arduino, N8N Automations

CERTIFICATIONS

- Udemy - AI Automation Specialist Course. Skills: AI Automation, Automation Systems
- Jobescapes - AI Automation Specialist Course. Skills: AI Automation, Intelligent Workflows
- UK Civil Aviation Authority - Flying Drones and Model Aircraft (Flyer ID). Skills: Drone Piloting
- LinkedIn Learning - Master Your Python Skills. Skills: Python
- Udemy - The Complete Android & Java Developer Course (Build 21 Apps). Skills: Java, Android Studio
- LinkedIn Learning - Fusion 360 Essential Training. Skills: Autodesk Fusion 360, CAD
- LinkedIn Learning - Become an Arduino Developer. Skills: Arduino, C Programming
- Simplilearn - Python for Beginners. Skills: Python

HOBBIES AND INTERESTS

- Drone flying and UAV technology
- Arduino electronics projects
- Programming, Automation & AI
- CAD design
- Exploring emerging technologies, reading and travelling

REFEREES

- Godfrey De. Silva, Manager, Gem Hotels, London, England, godfrey@gemhotels.com, +44 7970 106833
- Anurada Ekanayaka, Financial Reporting Manager, Alter Domus UK Ltd, London, England, panurada.ekanayaka@gmail.com, +44 7384 769479