Parikshit Padole

London, W2 3DU

parikshitpadole@gmail.com | +44 7776839257 | LinkedIn (http://www.linkedin.com/in/parikshitpadole/)

EDUCATION

Ulster University - London, United Kingdom **January 2022 – September 2024**

- BSc (Hons) Computing Systems
- Grade: First Class Honours (1:1)
- Relevant Modules: Software Development 1 & 2, Networks and Communications, Full-stack Strategies and Development, Edge and Embedded Intelligence.
- Award: Dean's List Award 2024

Dharampeth M.P. Deo Memorial Science College - Nagpur, India **September 2019 – October 2021**

- High School/ A – levels
- Grade: 90%
- Subjects: Physics, Chemistry, Maths, Computer Science and English

PROFESSIONAL EXPERIENCE

Electronics Engineer

Project Stratus - London, United Kingdom **October 2024– Present**

- Developed and programmed the electronics and communication systems for high-altitude balloon telemetry, using LoRaWAN and GNSS (Cicerone Board) for long-range data transmission and positioning.
- Designed and built the official Project Stratus website, which played a key role in securing regulatory approvals and funding.
- Collaborated with a multidisciplinary team to refine hardware-software integration for real-world deployment.

Software Developer (Orbital Mechanics)

Project Svarog - London, United Kingdom **October 2024– Present**

- Contributing to a student-led project aimed at developing a sustainable spacecraft for interstellar exploration.
- Designed scalable simulation models for orbital perturbations and atmospheric drag using Julia, improving simulation accuracy.

Project Support Assistant

London School of Economics |Centre for Economic Performance - Remote **February 2024 – December 2024**

- Enhanced machine learning models by analysing 5,000+ data points for binary gender recognition, improving classification accuracy by 15%.
- Applied pre-trained neural networks and pose estimation data to address real-world data challenges.

Teaching Support (Multimode Co-pilot)

Imperial College London - London, United Kingdom **February 2023 – October 2024**

- Collaborated with faculty, 200+ students, and AV/IT teams to deliver seamless hybrid learning experiences, integrating both in-person and online modalities to support a 95% class attendance rate.
- Set up and configured classroom technology for 100+ sessions, providing technical support and troubleshooting, which reduced audio/video downtime by 20% and ensured optimal connectivity for an enhanced student learning experience.

PROJECTS

PhysLean - Digitalising physics in Lean 4 | Reykjavik University **March 2025 - Present**

- Supporting formalisation of physics concepts into Lean 4 under Dr. Joseph Tooby-Smith's postdoctoral research.
- Contributing to the development of the open-source physics library PhysLean, focused on formalising kinematics and logic for community use.
- Actively involved in early-stage development of collaborative academic infrastructure with broad scientific implications.
- Technologies/Tools: LEAN 4, Mathlib

Satellite Attitude Control using Reaction Wheels | Imperial College London Hackspace **August 2024 – March 2025**

- Developing a simulation model to explore how reaction wheels stabilise a satellite's orientation by controlling angular velocity.
- Implementing a PID control system to regulate the satellite's attitude, focusing on real-time numerical simulations.
- Optimising PID parameters using Evolutionary Algorithms, minimising oscillations in satellite orientation.
- Technologies/Tools: Python, NumPy, Matplotlib, Manim, Control Theory, PID Controllers.

Satellite Tracking and Trajectory Prediction Application| Ulster University **January 2024 - August 2024**

- Developed a web application enhancing Space Situational Awareness by providing real-time satellite tracking and trajectory predictions.
- Simulated rocket launch trajectories based on user-defined parameters.
- Implemented an LSTM model with 92% accuracy using satellite data.
- Technologies/Tools: JavaScript, Python (Flask), React, Satellite.js, TLE data, NumPy, Matplotlib.

Earth Rock Classifier| Ulster University **June 2024 - July 2024**

- Developed a machine learning system for automated rock identification and classification with 94% accuracy.
- Trained the model on Raspberry Pi 4B using TensorFlow and OpenCV for real-time image classification.
- Technologies/Tools: Raspberry Pi 4B, Python, TensorFlow, OpenCV, CNN.

TECHNICAL SKILLS

Programming: Python, Embedded C, C++, Julia, JavaScript
Cloud Computing: AWS (EC2, Elastic Beanstalk), Postman.
Machine Learning: TensorFlow, OpenCV, NumPy, Pandas, PyTorch
Version Control: Git
Tools & Platforms: MATLAB, Visual Studio Code, KiCAD