PHILIPPE MIRANTHIS

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EDUCATION

University College London (UCL) (2024 - Present)

MSc Integrated Machine Learning Systems – (Expected Distinction)

- Expertise in supervised/unsupervised learning, classical ML, deep learning (MoE), reinforcement learning, NLP (Transformers/ GenAI), and computer vision.
- Courses in cloud computing and data centres, security and privacy, and IP networks.
- Strong coding focus: Data processing and Acquisition (SQL, web scraping etc), ML pipelines, software development, git versioning.
- Currently researching on improving LLMs for educational environment by improving grade suitability of responses.
- Dissertation to be completed in Reinforcement Learning applied to Linear Attention, currently in progress.

University of Bath (2018 - 2023)

MEng Integrated Mechanical & Electrical Engineering - First Class Honours

- Top grades: Mathematics 1 (95%), Mathematics 2 (94%), Signal Processing (98%), Electromagnetics (94%).
- Hands-on experience with embedded systems (C++, Verilog), electronics design, PCB design, control systems, physical modelling, mechanical design, computer architecture and system design (OS, compiler etc.)
- Strong foundation in MATLAB, Python, C++ and simulation/ modelling.

KEY COMPLETED PROJECTS

Machine Learning for Automated Exercise Monitoring (Final Year Project, Bath)

- Developed a wearable IMU-based system to classify exercises, count reps, and assess lifting technique.
- Applied advanced data preprocessing, statistical methods, and convolutional neural networks for time series classification using TensorFlow.
- Research and analysis skills tested with the ability to apply ML pipelines using cutting-edge techniques.

Autonomous Race Car Control System (Formula Student AI, Bath)

- Led control team for Team Bath Racing's autonomous race car, securing 1st place in the 2022 UK Formula Student Automated Driving event.
- Designed a master controller using sensor fusion data for track navigation (YOLO and SLAM).
- Implemented Model Predictive Controller and simulation using MatLab and C++ .

WORK EXPERIENCE

Graduate Project Manager (Size Group, London) (Nov 2023 – Sep 2024)

 Co-managed a £2M Mayfair renovation, coordinating designs, leading teams of subcontractors, and managing project timelines and client relationships.

Summer Intern Investment Analyst (Orbis Investment Management, Bermuda) (June 2022 - August 2022)

• Conducted company analysis and presented pitches to the investment team, collaborating closely with senior analysts and portfolio managers. Suggestions achieved significant returns making meaningful impact.

Robotics & Electrical Engineering Intern (UK Atomic Energy Authority) (Aug 2020 – Aug 2021)

• Assisted in robotic system development for the JET Fusion Reactor alongside AI experts and PhD researchers.

SKILLS & TECHNICAL EXPERTISE

Programming: Python (Pytorch, Tensorflow, HuggingFace), C++, MATLAB, SystemVerilog, SQL

Tools & Platforms: Git, Linux, OrCAD design suite, Hardware testing and design, Solidworks and Autodesk

Key Strengths: Machine Learning, Data Processing, Simulation & Modelling, Research, Teamwork and Leadership

Online Courses: Machine Learning (Coursera Stanford -2020), Neural Networks and Deep Learning (Coursera-2020)