Georgios Theocharidis

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Passionate about applying artificial intelligence to healthcare, with research experience spanning engineering, machine learning and neuroscience. My previous work includes developing a model for predicting Alzheimer's disease from MRI scans. Building on this experience, my current interests focus on using machine learning to better understand the brain and translate findings into clinical applications.

WORK EXPERIENCE

Appleyard Lees IP LLP

Trainee Patent Attorney *August 2024 to Present*

- **Collaborated** with inventors to draw out the inventive concept behind their technology.
- **Specialised** in drafting and prosecuting patent applications relating to machine learning methods.

NeuProScan

Co-founder *March 2023 to August 2024*

- **Developed** a comprehensive machine learning pipeline for handling MRI scans, involving the downloading, cleaning, normalising and labelling data.
- **Communicated** complex technical details to non-technical, multidisciplinary audiences, ensuring clarity and understanding across diverse fields.

BMW Group UK

Technical Services Intern *January 2019 to June 2019*

- **Proposed** a novel recall notification system for older vehicles via DAB radio, reaching drivers whose cars have no internet connectivity.

EDUCATION

Machine Learning in Science, MSc

Grade: Merit
University of Nottingham *September 2021 to March 2023*

- **Explored** advanced topics in machine learning, such as deep neural networks, CNNs, transfer learning, Markov decision processes, autoencoders, and LLMs.
- **Implemented** ML techniques in practical scenarios, including hands-on applications such a self-driving toy car project.
- **Applied** statistical concepts to real-world data analysis, considering issues like data collection, experimental design, and proper statistical analysis reporting.

Electronic and Electrical Engineering with a Year in Industry, BEng

Grade: First-Class Honours
Swansea University *September 2015 to June 2021*

- **Modelled** components of power systems, including transmission lines, generators, and transformers in different operating modes.
- **Gained** an understanding of transmission and reception of digital signals, cellular voice and data systems, and modern communication technology applications, like RFID and MIMO.

PUBLICATIONS

- **Co-authored** a peer-reviewed paper published in *Scientific Reports* (Theocharidis, G., Bisdas, S., Pazarzis, J. et al. "Applying ensemble machine learning techniques to MRI scans to predict Alzheimer's disease." Sci Rep 16, 28858 (2026). https://doi.org/10.1038/s41598-026-57402-8
- **Preparing** a second paper that uses machine learning to identify the most informative features for predicting Alzheimer's disease from multi-modal data (in progress).

ADDITIONAL SKILLS AND INTERESTS

- **President** of the Debating Society, Swansea University. *March 2020 to April 2021*
- **Student Representative** Year 1 Electrical and Electronic Engineering. *September 2016 to June 2017*