DANIEL PAGET

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EDUCATION

Master of Physics, Distinction, University College London

Oct 2021 - Sep 2022

Modules: Machine Learning with Big Datasets, Quantum Computation and Information Theory, Quantum Field Theory, Advanced Quantum Theory, Atoms and Photon Physics, Molecular physics.

Bachelor of Physics, First Class, University of Warwick

Oct 2018 - July 2021

Modules: Mathematics of Machine Learning, Statistical Physics, Quantum Mechanics, Functional and Real Analysis, Fluid and Classical Mechanics, Group Theory, Electrodynamics, Condensed Matter Physics, Scientific Computing.

EXPERIENCE

Undergraduate Researcher University of Warwick ${\bf Jan~2020~-~September~2020}$

Coventry

- Particle Physics research project within a global ongoing experiment funded by bursary using a C++ framework to analyse cutting edge particle physics data.
- Worked closely with PhD and postgraduate students and participated in weekly meetings.
- Was given the privilege of presenting my results to the leading academics in the DUNE UK group.

Tutor

September 2016 - Current

JD Consultancy Ltd. (JDC), The Nobel School, Superprof.com

UK

- 7 Years experience tutoring Mathematics and Physics privately.
- Working with ESL students at JDC Ltd. teaching UK Mathematics and Physics qualifications.
- 6-8 weeks volunteering at schools per year since 2019 including group sessions of up to 15 students and one-on-one sessions.

PROJECTS

Masters Thesis: Analysis of auroral patterns using deep learning

PYTHON JAVA BASH GIT

- Used large datasets and modern deep learning techniques to produce a novel global magnetic field prediction tool using Tensorflow.
- Developed an aurora generating machine learning model using GPU computing nodes at UCL.

Bachelor's Thesis: Deep learning classification of quantum phases

PYTHON BASH GIT

- Used convolutional neural networks to analyse quantum systems.
- Worked in a small team to develop machine learning models for terabyte-sized datasets using version control and GPU computing nodes at Warwick University.

Programming Portfolio - GitHub

PYTHON JAVA P5JS KOTLIN C++

- GitHub public collection of projects from over 5 years of development in many languages covering a wide range of applications including games, simulations and data processing projects.
- Closed source front end mobile application for a small business. Features include: REST API querying, in-store event calendar, push notifications and machine learning identification tool.

TECHNICAL SKILLS

LANGUAGES: Python, Java, Kotlin, C++, P5JS, Bash, Git.

FRAMEWORKS AND LIBRARIES: Tensorflow, Pytorch, Pandas, Numpy, Jetpack Compose, Pandora. TOOLS: Git, Linux, Android Studio, Processing, Blender, MatLab.