JORDAN MOSCHOVITIS

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PROFESSIONAL SUMMARY

Experienced and driven professional with a strong physics background and a demonstrated track record in mathematical modelling, data analysis, quantitative methods, and blockchain development. Offering 8 years of progressive experience in scientific research and project management with significant exposure to information technology and engineering. Recognised for optimising complex projects using a variety of programming languages and quantitative methods. Eager to leverage analytical and problem-solving abilities to drive results in a challenging researcher/analyst or technical consultant role.

SKILLS

Knowledge Areas:

- Advanced Physics
- Mathematical Modelling
- Technical Reporting

Programming Languages:

Python, MATLAB, R, C, Solidity, QISKIT

Data Analysis & Machine Learning:

- Pandas, NumPy, SciPy, SkLearn, OpenCV, PyTorch, Langchain

Other Technical Skills:

- SQL, HPC (SLURM), Docker, Kubernetes, LATEX

WORK HISTORY

SOLIDITY DEVELOPER, 08/2022 - Current

Freelance

- Led design and development of tailored smart contracts, resulting in successful project delivery for 2+ clients
- Leveraged Brownie framework, Python, and JavaScript to execute comprehensive test scripts for 2+ DeFi and NFT projects
- Boosted client satisfaction by successfully delivering DeFi, NFT and smart contract projects, including testing and deployment stages
- Developed 6+ Smart Contracts with optimised architecture patterns & token standards, meeting customer needs on time and within budget.

DATA SCIENCE AND MACHINE LEARNING ENGINEER, 03/2022 - Current

Freelance

- Streamlined sales forecast by implementing a probabilistic model using Python and client-provided data
- Enhanced engineering solutions by conducting comprehensive ANOVA, ANCOVA, and regression analysis
- Developed a highly efficient Monte Carlo Molecular Dynamics simulation model in MATLAB for a biomedical firm

- Led end-to-end data analysis for various clients, fostering improved decision making through data transformation and detailed technical reporting.

FOUNDER, 02/2020 - Current

LessonUp

- Devised effective study plans for 10+ students in mathematics and physics, resulting in average exam grades of 90%
- Mentored a Bio-Medicine student, enabling him to achieve a 98% grade and be listed in the Dean's Honours
- Produced revision materials and question banks for VCE Mathematics 3&4, contributing to student success during the 2020-2022 VCE exams
- Mentored students throughout their 2020-2022 exams preparation stage, resulting in the majority of students being accepted into their desired University degree

LABORATORY DEMONSTRATOR AND TUTOR, 02/2020 - 11/2022

University Of Melbourne

- Fostered an interactive learning environment for 30+ students, resulting in a 90% pass rate for tutorial groups
- Evaluated student performance, provided detailed feedback, and steered students to surpass their academic expectations
- Augmented student comprehension by initiating one-on-one academic conversations, enhancing their grasp of the course material
- Managed and delivered physics laboratory classes for 100+ first-year students, promoting comprehensive understanding of practical concepts
- Ensured the alignment of tutorial sessions & lesson plans with program standards
- Evaluated 50+ student assessments and provided actionable feedback to enhance learning outcomes.

PROJECTS AND RESEARCH WORK

Defects in Nanotextured Diamond Surfaces, MSC THESIS 08/2019 – 12/2021

- Engineered a dynamic COMSOL simulation with MATLAB for multi-parameter input and stochastic feature generation for quantification of defects in nanotextured diamond surfaces, contributing to a ***patentable*** Bionic Eye prototype.
- Validated simulations using experimental measurements, made with AFM, SEM and spectral ellipsometry, combined with image processing (OpenCV) to extract spatial topographical information of fabricated moth eye surfaces to serve as features for the computational model.
- Automated batch deployment of COMSOL simulation on HPC cluster server using Linux and SLURM.
- Analysed tabulated simulation data using Python and MATLAB, identifying critical correlations.
- Developed a predictive Gaussian process regression supervised learning model using surface input and transmission data from simulation output.

Flight System and Mission Operations, Melbourne, University Space Program CubeSat 2016 – 2018

- Designed and implemented critical attitude determination and control systems, contributing to successful CubeSat detumbling and tracking.
- Created a robust framework to collect environmental and locational data during flight, aiding in successful mission operation.
- Devised communication strategies to transfer navigational directives and course adjustments, enhancing mission success rate.
- Established a satellite-data retrieval system, allowing efficient data analysis and firmware updates during flight.

EDUCATION

Master of Science: Condensed Matter And Material Physics, 2021
University of Melbourne - Melbourne, VIC

- Studied: Computational Physics, Quantum Mechanics, Optics, Statistical Mechanics, and Mathematical modelling (MATLAB, Python, R).
- Thesis Statement: Defects in Nanotextured Diamond Surfaces
- Publication: **Defect Tolerance In Fabrication Of High Transmission Diamond Nanotextured Moth-Eye Surfaces For Near-IR Application,** Journal of the Optical Society of America A (Pending)

Diploma: Mathematics, Pure And Applied, 2018
University of Melbourne - Melbourne, VIC
Advanced skills in differential calculus, graph theory, applied mathematical modelling, stochastic methods.

Bachelor of Science: Physics, 2018
University of Melbourne - Melbourne, VIC
Major in Physics, First Class Honours

High School Diploma: 2014
Carey Baptist Grammar School - Kew, VIC

- Recipient of IB Mathematics, Music, Physics, and Business and Management Subject Awards
- Australian Tertiary Admission Rank (ATAR) - 99.7/99.95

CERTIFICATIONS

- Ethereum & Solidity Programming, Udemy - 2022
- SQL for Data Science, IBM - 2022
- Deep Learning with Python and Pytorch, IBM - 2022
- Machine Learning with Python: From Linear Models to Deep Learning, MIT - 2021
- Machine Learning with Python: A Practical Introduction, IBM - 2020

AFFILIATIONS

- **Dance School Director**, **Hellenic College of Arts, Dance and Culture -** Retaining a total of eighty enrolled students across three separate class groups. Preparation of a dance curriculum and performance program.
- **Director at United Hellenic Education, Melbourne** - A not-for-profit organisation dedicated to preserving Greek culture in Australia by enhancing Community Language School experiences by providing education programs making learning interactive and exciting, Feb 2020 / Present.
- **Volunteer Mathematics and Physics Tutor at VCESS -** Tutor for the University of Melbourne VCE Summer School Program, tutoring Specialist Mathematics Units 3 & 4, Dec 2019 / Jan 2020
- **Education Officer at National Union of Greek Australian Students (NUGAS)** – Liaise with external community educational organisations (community groups, schools and universities), Greek Community of Melbourne Board, and NUGAS members. Organise and lead initiatives to promote the learning and study of modern Greek at high school and tertiary level, Apr 2017 / 18.
- **President at MUNGA** - Oversee activities of the club including academic and social events, direct large committee towards cultural and community-oriented goals, Apr 2016 / Apr 2017.
- **Cultural Affiliations Officer at MUNGA** - Coordinate fundraising events, promotion and performing group for tavern nights, liaise with external community bodies to strengthen philanthropic relationships, Apr 2015 / Apr 2016.