MINJUN JEON

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EDUCATION DPhil in Quantum Computing, University of Oxford 2022 - Present Research in silicon-based quantum computing under supervisor Prof. Simon Benjamin • Industrially funded studentship covering full tuition and stipend from Quantum Motion Ltd. Master of Mathematical and Theoretical Physics, University of Oxford 2017 - 2022 2022: Distinction in MMathPhys: Master of Mathematical and Theoretical Physics 2021: First Class in BA classification of MPhys: Master of Physics **RESEARCH EXPERIENCE** DPhil Project – Robustness of electron charge shuttling: Architectures, pulses, charge defects and noise thresholds [PhysRevB.111.195302] 2025 Numerically solved the Schrodinger equation to simulate the dynamics of wave function for shuttling an electron in a realistic semiconductor quantum device Published in Phys. Rev. B DPhil Project – Noise-aware Time-optimal Quantum Control[arXiv:2504.00279] 2025 Researched optimization of control pulses to find the minimum time for state-to-state transfer and quantum gate compilation in the presence of decoherence Currently under review in PRXQuantum DPhil Project – Characterisation of guantum dots using Deep Learning 2025 Applied deep learning models in computer vision to classify the device operation regimes of the quantum dot spin gubits and find conditions for the formation of double dots. Master's Thesis – Deep Neural Networks and Algorithmic Information Theory 2022 Researched relational inductive biases in parameter function maps of different neural networks: Fully Connected Neural Networks (FCNN), Convolutional Neural Networks (CNN), and Graph Neural Networks (GNN) in Pytorch Course Project – Node Classification of Hierarchical Networks with Hyperbolic Representation Learning 2022 Demonstrated the supremacy of node embedding of hierarchical networks in hyperbolic space over Euclidean space by comparing Node2Vec, GraphSAGE, and Hyperbolic Convolutional Neural Networks **Bachelor's Project – Rutherford Scattering Project** 2021 Researched the scattering rates of *a*-particles off the foils of varying thickness Automated scattering image analysis with image filtering and contour detection methods using OpenCV WORK EXPERIENCE **Data Reply, Summer Internship** 2022 Benchmarked optimization methods in classical and simulated quantum computers for the vehicle routing and optimal cell tower allocation problems in python

AWARDS & SCHOLARSHIPS

Korea Presidential Science Scholarship – Korea Student Aid Foundation		2017 - 2022
•	USD 50000/year, covering tuition, accommodation, and living expenses for 4 years	
Silver Medal – International Young Physicists' Tournament, Yekaterinburg, Russia		2016
•	Selected as a national representative and become a captain of a national team	

Programming Knowledge

• Python: Advanced (Experience with Pytorch, Scikit-Learn, NumPy, SciPy, Jax, OpenCV, etc.)