

# Jack Griffiths

Theoretical physicist, data scientist and machine learning specialist



## Now

Ph.D. Theoretical Physics  
Durham University (2020–2024)

Thesis: Machine learning for ultra-cold atomic physics.  
Developing novel machine learning (ML) methods, algorithms and models in ultra-cold atomic physics with demonstrable speed-up over non-ML methods.

Teaching: Maths Workshop  
Durham University (2023–2024)  
Assisting the delivery of a third year course covering vectors and matrices, complex analysis, the calculus of variations, asymptotic methods and integral transforms.

Ukrainian.fyi  
Building educational resources for people to learn Ukrainian.

## Past

Teaching: Foundations of Physics  
Durham University (2020–2023)  
Personal tutor for 30+ students, delivering small-group tutorials on classical mechanics, electromagnetism, special relativity, atomic physics, nuclear physics and quantum mechanics.

MPhys Master of Physics (First Class Honours)  
Newcastle University (2016–2020)  
Dissertation: finite-temperature simulations of a quantum atomtronic interference device.

Managing director of MINIML Ltd. (2016–2019)  
Managing director of a digital product development company specialising in commercial educational technology. Lead full-stack developer for online courses specialising in effective assessment of students.

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🌐 jackg.co

📍 United Kingdom

🇬🇧 English (native)

🇺🇦 Ukrainian (intermediate)

💻 **Technical skills:** Rust, Python, machine learning (PyTorch), Fortran, Javascript (including React.js and Next.js), website design and development, bash/zsh, high-performance computing, and git. I am open to learning new languages!

🏆 **Awards:** The Queen's Award for Enterprise (MINIML Ltd.), ncl+ Award in Research, Gerard McCartan Memorial Prize for Outstanding MPhys Project, Gerard McCartan Memorial Prize for Outstanding Contribution to the School, Best Poster Prize at *International Quantum Fluids and Solids* conference 2023.

🧠 **Misc:** Developed quizzdle.app, a daily crossword-style quiz. Interested in languages and the science of language acquisition. I also play piano, and enjoy classical music. I love to travel and explore the world.