## Edward Williams

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## **EDUCATION**

#### UNIVERSITY OF OXFORD, Worcester College, DPhil in Computer Science

Oct. 2025 - Present

Ongoing PhD in Machine Learning, supervised by Dr. Mark van der Wilk

Funded by Laboratory for AI Security Research (LASR) scholarship

UNIVERSITY OF CAMBRIDGE, St. Catharine's College, Part III Mathematics MASt Oct. 2022 - Jun. 2023

Grade: **Distinction** 

Key Modules: String Theory, Advanced Quantum Field Theory, Supersymmetry, General Relativity, Black Holes

IMPERIAL COLLEGE LONDON, MEnq Mathematics and Computer Science

Sept. 2018 - Jun. 2022

Overall grade: First Class Honours (83.87%) - ranked on the Dean's List (top 10% of year) in Years 2, 3, and 4.

Achieved highest mark in year in Year 3 (89.75%)

**Key Modules** (%): Machine Learning (97), Robotics (97), Compilers (96), Software Engineering (95), Type Systems (94) General Relativity (100), Special Relativity and Electrodynamics (98), Algebra III (84), Statistics (82)

#### WESTMINSTER SCHOOL

Aug. 2013 - Jun. 2018

A Level Results: 4 A\*s in Mathematics, Further Mathematics, Physics, and Economics. GCSE Results: 12 A\*s

### EXPERIENCE

Software Engineer, Jump Trading LLC

September 2023 - June 2025

• Working in core engineering team, pipelining exchange reference data and analysing research datasets

CTO / Lead Software Engineer, Curv Ltd.

February 2022 - February 2025

• CTO of start-up developing wearables for posture tracking. Won Kickstart Global Incubator and Accelerator programs

Software Engineer Intern, Jump Trading LLC

July 2022 - September 2022

• Completed a 10 week internship developing pipelines to onboard market reference data from new financial exchanges and sports betting markets. Worked closely with several trading and engineering teams. Offered full-time role

Software Engineer Intern, Bloomberg L.P.

June 2021 - September 2021

• Completed a 4 month placement in the FX & Commodity Derivatives Pricing team in Financial Analytics developing a new Python API for options pricing, as well as picking up various other tickets. Offered full-time role

Undergraduate Researcher (UROP), Imperial College London, Dept. of Computing

July 2020 - August 2020

• Awarded competitive EPSRC Bursary for research project investigating generation of counterfactual explanations and adversarial examples for neural networks and Bayesian classifiers, supervised by Professor Francesca Toni

Undergraduate Researcher (UROP), Imperial College London, Dept. of Mathematics

June 2019 - August 2019

• Group research project entitled "Fourier Transforms in Algebraic Settings", supervised by Dr. Travis Schedler. Worked closely in team of three, studying advanced areas of pure maths such as representation theory and functional analysis

#### NOTABLE PROJECTS

Learning to Plan from Curiosity - Imperial College London | PyTorch, MuJoCo

October 2021 - June 2022

MEng thesis supervised by Dr. Edward Johns with Imperial's  $Robot\ Learning\ Lab$ . Developed a novel framework for RL agents to learn goal-conditioned policies from autonomous intrinsically motivated exploration. Achieved a mark of 82%

#### DeFi Liquidation Bot - Imperial College London | Go, Solidity

October 2020 - January 2021

Worked in team of six to build a highly concurrent, optimised bot, written in Go, to liquidate unhealthy loans on lending protocols across the Ethereum blockchain. Overall mark of 87% and won a CPP Prize, given to top five 3<sup>rd</sup> year group projects

#### Pintos Operating System - Imperial College London | C, QEMU

January 2020 - March 2020

Worked in a team of four to implement functionalities of the Pintos operating system, including priority scheduling, multilevel feedback queue scheduling and system call functionality. Written in C and gained an overall mark of 88%

# SPORTS/OTHER INTERESTS

Football | Old Westminsters FC 1<sup>st</sup> XI; Worcester College Oxford 1<sup>st</sup> XI

2021 - Present, 2025 - Present

Helped raise over £17,000 for charity playing in a 24-hour football marathon

2016 - 2018, 2022/23

Squash | Westminster School Squash 1st Team Captain; St. Catharine's College 1st Seed
Pool | Two-time Winner of Pool Cup, Westminster School; Cambridge University Pool Team

010 - 2010, 2022/20

2016 - 2018, 2022/23

Languages: Python, Rust, Java, Haskell, Scala, Go, C/C++, Dart, HTML/CSS, and JavaScript

Interests: Keen linguist, learning several languages, such as Brazilian Portuguese and Norwegian, 3000+ day Duolingo streak Other technical skills: Git, Linux, LaTeX, PyTorch, NumPy, Pandas, Django, ANTLR, Vim/Emacs, (C)Make, and Office