



## Contact



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Based in Durham or  
Cambridge, UK

## Key skills

Development in:  
Visual Studio, VSCode, Unity,  
Sublime, Github, Matlab

Programming with:  
C/C++, C# (.Net and Core),  
HLSL, Java, Javascript,  
Typescript, HTML, CSS,  
SCSS, Python, Matlab

Development technologies:  
Unity, Unreal, Node.js,  
React.js, Three.js, Parcel.js,  
TensorFlow, PyTorch,  
OpenSfm

## Education

The Perse Upper School:  
GCSE and A-Level

St Faith's School

The Vine Inter Church  
School

## Nationality

British

# Christopher Teo

<https://randomuserhi.github.io>

## Profile

I am currently pursuing a MSc in Computer Science at Durham University (completion Sep 2025). I was awarded a BSc (1<sup>st</sup> Class Hons) in Computer Science, Durham University, in July 2024, and have over 6 years of development experience using modern tools/technologies in academia and industry via internships.

My BSc thesis on Machine Learning optimisation, "Exploring Mixture of Experts and Sparse Vision Transformers", explores the use of sparse models to reduce the computational cost at evaluation time. My results show that the performance of these models is improved when domain knowledge is applied to the expert specialisation; the thesis can be downloaded from my website.

## Experience

PolyAI (Machine Learning Voice Assistant Service), London, UK  
*June 2023 – September 2023*: Fullstack Development Engineer

- Wrote high level design document specifications.
- Coding in Python, React, NextJS and used SQL.
- Web design in Figma and project management in Jira.

Durham University (Dept of Computer Science, Dept of Physics), Durham, UK  
*October - December 2023*: Lab Demonstrator for Algorithms and Data Structures (CS)  
*August - September 2022*: XR Internship, Hololens & Oculus (Physics)

- Lead programmer in creating a Physics demo from the ground up showcasing the Hololens and Oculus for Physics undergraduate teaching.
- Programmed in Unity with custom toolkits for hand tracking and interaction.
- Features mechanics, electro-magnetics and optics simulation.

Toshiba (Cambridge Research Laboratory), Cambridge, UK  
*July - August 2021*: Spherical Image Collection and 3D Reconstruction

- Collected spherical/equirectangular images of Cambridge to create point clouds which when put in a mesh, formed a 3D model of the city.
- Programmed tool to extract GPS coordinates and fisheye image from RAW files.
- Reconstruction performed using OpenSfM library running on GPU rack with multiple NVIDIA cards.
- For computer vision deep learning research.

MediaTek (MTK Wireless Ltd), Cambourne, UK  
*August 2019, July 2018, August 2017*: Software for 5G Chip Testing

- Programmed test software to automate the logging of mobile network traffic from 5G baseband modems (eg. signal strength, connection speed) for quick interpretation.
- Software used for testing SoCs and 5G qualification in London.
- Worked in the development team utilising Scrum methodology.
- Also worked in bug fixing team performing code updates for field reported issues.
- Developed in C# and JavaScript.

AIXTRON Ltd, Swavesey, UK  
*August 2019, August 2018*: Graphical User Interface implementation

- Control Interface for AIXTRON Systems.
- Created intuitive touchscreen GUI's for AIXTRON batch and roll-to-roll chemical vapour deposition reactors for depositing graphene.
- Created online tool to analyse machine data/logs to create data trees based on events for easy navigation.
- Developed in HTML5, Javascript, Structured Text (TwinCAT 3).

## Education

Durham University, Durham, UK

MSc Computer Science (Scientific Computing and Data Analysis) (in progress), 2024 – Present

- Machine Learning and Statistics, High Performance Computing, Performance Modelling, Vectorisation and GPU Programming, Financial Mathematics, Advanced Financial Technologies, MSc Thesis (tbd).

Durham University, Durham, UK

BSc Computer Science (First Class Honors), 2021 - 2024

- Thesis: Exploring Mixture of Experts and Sparse Vision Transformers (supervisor: Prof Paolo Remagnino).
- Third Year: Deep Learning, Reinforcement Learning, Advanced Computer Systems, Algorithmic Game Theory, Multimedia and Game Development, Parallel Scientific Computing, Natural Computing Algorithms, Virtual and Augmented Reality.
- Second Year: Programming Paradigms, Theory of Computation, Networks and Systems, Artificial Intelligence, Data Science, Software Engineering.
- First Year: Programming, Computational Thinking, Algorithms and Data Structures, Computer Systems, Mathematics for Computer Science, Computational Tools for Engineers and Scientists.

The Perse Upper School, Cambridge, UK

Years 9 -13 (A level), 2016 - 2021

- A Level: Further Maths (D1), Maths (D1), Physics (D1), Computer Science (A\*), Ext Project Qualification (A\*).
- GCSE: Further Maths (A<sup>+</sup>), Maths (9/A\*), Computer Science (9/A\*), Physics (9/A\*), Design & Tech (9/A\*), Chemistry (9/A\*), Biology (8/A\*-A), Art & Design (8/A\*-A), English Language (8/A\*-A), Literature.

## Selected Achievements

GTFO Mods (various) – released on Thunderstore.io with >76,000 downloads worldwide, 2024

NWG Hackathon – Winner, Durham University, 2023

- First place winner (sponsored by Northumbrian Water Group) of the NWG Hackathon 2023 for “Pipe Planner”.

Durhack – Winner, Durham University, 2022

- Platinum prize winner (sponsored by Alteryx) of Durhack 2022 (24 hour coding marathon) for “Olympic Oracle”.

Computational Neural Network with GPU acceleration – Image classifier, self-implemented project

Multiplayer Server Authorative game in Unity – Computer Science Project, A\* awarded, 2021

Neural Networks in Disease Diagnosis – Extended Project Qualification, A\* awarded, 2020

Young Enterprise Scheme – won Best Logo design, Head of IT and Marketing, 2020

Smart WiFi Pill Dispenser – GCSE Design and Tech, A\* awarded, 2019

Webmaster for Cambridge Blue Plaques (volunteering) – received award from Major of Cambridge, 2018

Speech and Public Speaking – Grade 5 with Merit

Bebras Challenge – Distinction and Merit / Intermediate Maths Challenge – Gold award

Prizes – Douglas Hartree Cup for Coding Hitchcock Cup for Science / Fletcher Cup for Maths / Hammonds Cup for Computing / Ambassador Award

## Referees

**Prof Paolo Remagnino**, Durham University

[www.linkedin.com/in/paolo-remagnino-0426102/](https://www.linkedin.com/in/paolo-remagnino-0426102/)

**Assoc Prof Philippa Petts**, Durham University

[www.linkedin.com/in/pippa-petts-44486a244/](https://www.linkedin.com/in/pippa-petts-44486a244/)

**Dr Alex Jouvray**, AIXTRON Ltd

[www.linkedin.com/in/alex-jouvray-9a82913/](https://www.linkedin.com/in/alex-jouvray-9a82913/)

**Mr Paul Gray**, (ex) MTK Wireless Ltd

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