

# Ethan D'Souza



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ethandsz



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## Education

### MSc Robotics & Artificial Intelligence

Expected First Class Honours  
University College London (UCL)  
London, United Kingdom

### BSc (Hons) Artificial Intelligence

Anglia Ruskin University  
First Class Honours  
Cambridge, United Kingdom

## Certifications

### Data Analysis with Python: Zero to Pandas

[Jovian.ai](#)  
Online Certification

### Machine Learning with Python: Zero to GBMs

[Jovian.ai](#)  
Online Certification

### Machine Learning Onramp

MATLAB Online Certification

### Deep Learning Onramp

MATLAB Online Certification

### Signal Processing Onramp

MATLAB Online Certification

### Image Processing Onramp

MATLAB Online Certification

## Experience

### May 2025 - UCL Aerial Research Intern

Present Developed and integrated SLAM algorithms on an X500 drone, using an onboard Jetson Nano for processing.

- Independently implemented 2 different SLAM frameworks into a software pipeline and deployed on a drone running autonomously to localize and map the environment.
- 3D modeled a custom drone platform and documented the entire process in over 10 pages for new team members, covering everything from software setup to hardware integration.

### Sep 2022 - Blackdot Solutions - Fullstack Software Developer [Blackdot Solutions](#)

Feb 2025 Independently developed and maintained core functionality within data integration systems and web applications.

- Implemented Github actions to run automated tests over 50 times per day as part of a continuous integration build pipeline which is still used today.
- Delivered presentations and demos during sprint review meetings, addressing over 30 people at a time.
- Integrated 5 APIs into production requested by organizations such as HSBC, Deutsche Bank, and the Government of the United Kingdom, among others.

### Jan 2022 - Openspace - Mobile App Developer [GitHub](#)

Jun 2022 Developed a geo-location-based mobile game to encourage the exploration of Cambridge.

- Used Flutter and Dart to incorporate both major operating systems (Android and IOS).
- Used Google Cloud Platform to incorporate Google Map APIs.
- Supported concurrent usage by 100+ users and handled over 5,000 API calls in a single day.

### Sep 2019 - Code Ninjas - Educational Tutor [Code Ninjas](#)

Apr 2020 Supported 5 students at a time for academic progress in programming languages, mainly Python and Scratch.

- Communicated with parents or guardians about trouble areas or any issues that required attention.

## Other Experience

### Dec 2024 1st Place Winner at a Neuphonic X Google AI Hackathon [Neuphonic](#)

Built an ultra-low-latency object detection system for visually impaired users in under 4 hours, leveraging YOLO, an Arducam, and a real-time text-to-speech API.

### May 2025 GPS-Denied Drone Navigation

Engineered a GPS-denied drone navigation system using off-board LiDAR, featuring autonomous path planning and a fail-safe return.

- Enhanced an existing SLAM framework to create real-time occupancy grids and dynamically select waypoints within 5 meters of LiDAR coverage.

### Apr 2025 Laplacian Based Drone Swarm [Portfolio](#)

Developed a decentralized drone swarm control system using a Laplacian-based coordination method, implemented on Crazyflie drones as part of a research-driven academic project.

- Successfully deployed the system on 3 Crazyflie drones and navigated through a field of 7 poles.