

# Orlando Alexander

✉ orlando@orlandoalexander.uk ☎ +44 7486372351 📁 Project Portfolio 🔗 LinkedIn 🐙 GitHub

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## EDUCATION

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### BSc Data Science, University of Bristol (2024 - 2027)

- First-Class Honours, Year 1: Top marks in Algorithms & Programming (87%) and Coding & Data Analysis (83%).
- Authored renewable energy paper (85%) using Python to analyse 28-year global dataset, revealing inverse GDP-fossil fuel consumption correlation and 8-fold renewable energy growth in high-income countries (2000-2015).
- Proficient in Python, JavaScript, React, SQL, R, C, C++, TensorFlow, Pandas, NumPy, Flask, AWS, GCP, and GitHub.

### A-Levels, Berkhamsted Sixth Form (2020 - 2022)

- A\*, A\*, A\*, A in Physics, Computer Science, Mathematics, and Further Mathematics.
- A\* (100%) in EPQ: Designed a flow-optimised hydroelectric energy generator to maximise wastewater head.
- Head Boy: Founded Academic Gala; delivered talks to 1,000+ audience members; campaigned on food waste.

### Data Science Bootcamp, Le Wagon (Oct - Dec 2022)

- Intensive 10-week course on Machine Learning, Deep Learning, Data Engineering & Data Analysis.
- Capstone Project: Trained 9 CNN classifiers on 40,000 fashion images with TensorFlow (70–95% accuracy); integrated with ASOS API and KNN similarity model via Scikit-Learn to recommend personalised outfits.

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## PROFESSIONAL EXPERIENCE

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### Data Science & Software Lead, 180 Degrees Consulting, Bristol (Sep 2024 - Present)

- Lead 40 data science & software consultants delivering pro-bono projects for 7 global social impact clients.
- Secured industry partnerships with Le Wagon and Accenture to deliver mentorship and technical training.
- **Data Pipeline for Disease Analysis, EcoSwell (Jun - Sep 2025)**
  - Implemented an end-to-end data pipeline consolidating 66,000 entries from 5 years of weather, dengue, census, and expenditure data using Pandas, NumPy, and Selenium, replacing weeks of manual downloading.
  - Used Monte Carlo analysis to forecast dengue outbreaks in Peru, enabling data-driven public health decisions.
- **Resource Management Platform, everyFAMILY (Feb - Apr 2025)**
  - Deployed modern React data management web app with Flask REST API backend (Docker on GCP Cloud Run).
  - Reduced onboarding time by 30%; delivered scalable platform rated 5/5 by client for 'exceeding expectations'.
- **Food Aid Analytics Dashboard, Cirencester Foodbank (Sep - Dec 2024)**
  - Developed analytics dashboard to process and visualise 5,000+ food aid records across 100 data fields, implementing Streamlit frontend, REST API backend, and Python data stack (Pandas, NumPy, Matplotlib).
  - Delivered 3 years of insights on regional demand and seasonal trends to enable targeted aid allocation.

### Full-Stack Software Engineer, Educatch, London (May 2024 - Present)

- Designed and deployed production-grade React platform with MySQL backend, automating scheduling, invoicing, and attendance analytics for 50+ students.
- Reduced administrative workload by 10 hours/week; became company's most-used tool, supporting expansion.

### Junior Software Engineer, VISENSE, Berlin (Feb 2023 - Feb 2024)

- Built ML studio with drag-and-drop interface to create video analysis workflows in <5 mins using React and Axios.
- Deployed for major clients including BMW, ABB, and SIG for real-time manufacturing anomaly detection.

### Junior AI Engineer, Connect AI (Jan 2023 - Jan 2024)

- Developed GPT-4 LLM-powered customer support assistant with React frontend for startups including Digital Republic, handling 5,000 messages/month with 24/7 multilingual support.
- Implemented RAG (Retrieval-Augmented Generation) workflows with real-time feedback loops, reducing first-level ticket volume by 20% and improving resolution time by 95%.

### Renewable Energy Intern, EcoSwell, Peru (Aug - Sep 2022)

- Developed integrated monitoring system with Python on Raspberry Pi, capturing 10,000+ data points weekly across 8 key data types.
- Designed offline logging system for automated, reliable reporting on UN SDG goals in remote conditions.

### Computer Vision Engineer Intern, Inovo Robotics, Guilford (Aug 2021)

- Designed computer vision system for automated pastry decoration, 90% more efficient than manual methods.
- Implemented advanced algorithms including Canny edge detection, Hough transformations, and clustering for path optimisation using OpenCV and mlrose.

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## INTERESTS

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**Programming Tutor** — Tutored 300+ students in Python, Web Development and ML at PMT, codetoday and Code Kids.

**Drama** — Performed at Edinburgh Fringe 2024; produced and acted in 15 Bristol DramSoc productions.