

Isaac Walsham

BSc Computer Science (2nd Year) • University of East Anglia

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EXPERIENCE

University of East Anglia — Research Assistant

Sep 2025 – Present

- Developed Python solutions for an AI-driven research project, focusing on algorithm design and data processing under strict deadlines and clearly defined deliverables

David Lloyd Leisure — Lifeguard

Sep 2024 – Present

- Responsible for pool safety, member supervision and maintaining high health and safety standards across two sites

PROJECTS

PhysiquePilot — Founder & Solo Developer

2025 – Present

A data-driven web application in development with UEA's Enterprise Centre that collects user training and nutrition variables, applies machine learning to learn from individual patterns, and translates outputs into actionable visual dashboards.

- Designed the end-to-end data pipeline: collection, cleaning and structuring of multi-variable user datasets using Python, pandas and NumPy
- Applying machine learning techniques to identify patterns in user data and generate personalised weekly goal projections
- Translating model outputs into clear visual dashboards including progress charts over time, goal projections and weekly breakdowns using Matplotlib; designed to turn raw data into something a user can immediately act on
- Built solo using React (frontend) and Python (backend); currently in active development

Search Engine Research Project — UEA

2024 – 2025

Designed and implemented a general-purpose search engine in Python, then ran structured experiments across different configurations to evaluate performance.

- Designed and built multiple search engine variants in Python, systematically testing different ranking and optimisation techniques
- Collected and analysed experimental results across configurations, identifying which approaches produced the strongest performance outcomes
- Communicated findings through a structured presentation to academic staff, translating technical results into clear, accessible conclusions
- Wrote a research paper documenting methodology, results and recommendations

EDUCATION

University of East Anglia — BSc Computer Science

Sep 2024 – Jul 2027

- Achieved over 75% in second year studies to date
- Relevant modules: Data Science (Python, pandas, NumPy, data visualisation), Databases, Algorithms & Data Structures, Software Engineering

SKILLS

Data & Analysis

Python (pandas, NumPy, Matplotlib)
Machine Learning & AI modelling
SQL & PostgreSQL
Data visualisation & dashboarding
Excel, Word, PowerPoint

Software & Engineering

JavaScript, React, Node.js, Express.js
Java, C, C++
Version Control (Git / GitHub)
Object-Oriented Programming
System Architecture & Design