

THEO BAINS

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EDUCATION

Durham University, Hatfield College

Expected June 2027

Mathematics

- On track to receive a first-class degree.
- Competed in 24-hour mathematical problem solving competition, achieving 2nd place in 2025 and 4th place in 2024 (top-ranked freshers)
- Ranked 3rd in year group for Programming I project
- **Relevant Modules:** Computational Mathematics II (*Python, MatLab*), Statistical Inference II (*R*), Programming I (*Java & Python*)

University of Liverpool Mathematics School

Sep 2022 - Jun 2024

A-Levels

- A*A*A in Mathematics, Further Mathematics and Computer Science
- Awarded the 'Colin Thomas' award for outstanding achievement in mathematics.

PROJECTS

Portfolio Site: theobains.co.uk, live interactive demos and write-ups of other projects

- **Markov Chain Text Generator:** Developed a Python based Markov chain model using matrix-based operations on an author's corpus to generate predictive text through word-sequence modelling.
- **Maze Generation Program:** Built a Java application to generate mazes using various algorithms, comparing their specific structural biases and efficiencies across different configurations.

WORK & LEADERSHIP EXPERIENCE

Direct Soccer

July 2026 - Sep 2026

Technology Intern

- Redesigned the ordering process for 12 suppliers, building CSV converters and portal scripts that cut manual tasks from ~45 to 5-10 minutes; documented and deployed via Azure DevOps.
- Built a stock feed converter, since deployed to the company's internal platform via Azure DevOps, cutting a daily 30-45 minute task to under 10 minutes.
- Co-led an AI readiness programme for office staff: audited understanding, ran a two-part workshop on AI tools and safe use, then re-audited and recorded a significant increase in confidence and understanding.
- Co-organised a 16-team U12s charity football tournament, securing Umbro as headline sponsor and leading front-facing logistics for a high-profile event.

University College Undercroft Bar

Feb 2025 - Current

Student Shift Leader

- Lead and manage a team of 7 staff in a fast-paced, high-pressure environment.
- Co-pitched, planned and staffed a new cocktail bar adjacent to the main venue, generating around £7,500 in revenue within its first 2.5 weeks.

Hatfield College Lion in Winter Ball

Aug 2025 - March 2026

Vice Chair and Treasurer

- Oversee financial planning and logistical coordination for a 200+ guest event with a budget exceeding £50,000.
- Direct fund allocation, lead sponsorship outreach, and manage vendor relations to ensure cost-effective decision-making for the year's largest college event.

Durham University Boxing Club

Sep 2024 - Current

Captain and Squad Member

- Voted in as 2026/27 club captain, responsible for leadership and logistical coordination.

TECHNICAL SKILLS AND ACTIVITIES

- Java, Python, SQL, R, MatLab, web development (*HTML, CSS, JS*) and technical reporting in LaTeX.
- Fluent in English, Proficient in Italian.