

Arkoday Roychowdhury

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Computer Science undergraduate at the University of York with practical data science experience in healthcare — most recently building patient cohorts and cross-venue outcome analyses at Bluevia Health. An early hands-on engineering education pushed me towards the applied side of technology, and towards machine learning and robotics.

TECHNICAL SKILLS

Programming languages	Python, Java, SQL, C, Bash, Assembly
Libraries and frameworks	pandas, NumPy, scikit-learn, PyTorch, Matplotlib, Tkinter
Methods	data cleaning, statistical analysis, hypothesis testing, regression, decision trees, K-Means, CNNs
Computer science	data structures and algorithms, complexity analysis, concurrency and parallel programming, computer architecture, operating systems, TCP/IP networking, test-driven development
Tools and platforms	Git and GitHub, Jupyter, Gemini CLI, MCP Platform, SQLite, Excel
Operating systems	Windows, macOS, Linux (Ubuntu)
Spoken languages	English and Bengali (fluent); French (intermediate); Hindi (basic understanding)

EXPERIENCE

Bluevia Health — Data Science Intern, Remote Apr – Jul 2026

- Worked on a venue-of-care analysis building towards interpretable risk stratification, extracting and analysing patient data from the MCP Platform using Gemini CLI.
- Built cohorts covering inpatient and outpatient populations as well as specific surgical procedures, then enriched their encounters by layering data such as medications and labs accessed through the platform.
- Produced statistical analyses of cross-venue outcomes including length of stay and readmission, and cleaned and prepared the data for export in accordance with patient privacy guidelines.

Took away: an end-to-end view of clinical data work, and confidence using an LLM command-line tool as a real analysis instrument.

Network Rail — Engineering Challenge, Team Lead Mar – Apr 2022

- Led a team of 10 across two challenges: redesigning London Euston station and the railway route from London Euston to Birmingham New Street.
- Combined technical design with business-case planning under cost and efficiency constraints; the proposed route was projected to increase profits by 3–4% through price discrimination.

Took away: my first experience of leading a team to a deadline under commercial as well as technical constraints.

University of Warwick Esports — Marketing and Production Apr 2022

- Created a promotional video and a promotion strategy for an esports tournament that was later broadcast to hundreds of viewers, using Canva and Pixlr for graphics and DaVinci Resolve for editing.

Took away: how to shape content around a specific audience and a fixed date, plus practical production skills.

PROJECTS AND TECHNICAL DEVELOPMENT

- Forex trading algorithm** — built for the Morgan Stanley programming challenge, 2024; a first exercise in turning a strategy into testable code.
- Personal finance applications** — an expense tracker and finance dashboard built for my own use at university, 2024.
- MIT OpenCourseWare** — completed “Introduction to Computer Science and Programming Using Python”, 2024.
- CNC Machining** — programmed and operated a CNC lathe at WMG Academy for Young Engineers, 2021.

EDUCATION

University of York — BSc Computer Science Expected 2027

- On track for a 2:1 based on second-year module results.
- Relevant modules:** Introduction to Data Science; Intelligent Systems (Machine Learning and Optimisation); Object Oriented Data Structures and Algorithms; Operating Systems, Security and Networking; Advanced Computer Systems.

WMG Academy for Young Engineers, Coventry — A-levels 2024

- Mathematics (A), Physics (B), Economics (B), Further Mathematics (C)

LEADERSHIP, AWARDS AND INTERESTS

- University of York Badminton Club** — B team player in my second year, competing in league fixtures alongside a full academic workload.
- National Citizen Service, Westhorpe Farm, Marlow** — raised over £1,080 for the Coventry food bank with my group, the highest total in that summer’s programme, through outdoor and problem-solving work with people I had never met, July – August 2022.
- CIMA Business Management, April 2022** — awarded “Outstanding performance”.
- Other interests** — Chess and weightlifting outside of badminton.