Jeet Thakwani

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Education

University College London (UCL), BSc Computer Science   London, UK
  Modules including: Discrete Mathematics, Algorithms, Theory Of Computation,   2024 – 2027
  Year 1 Grade: First Class (average 78%)

Vibgyor High, A Levels   Vadodara, India
  A*A*A*A in Physics, Chemistry, Further Mathematics, and Mathematics   2022 – 2024

Technical Experience

Jane Street FTTP, Spring Week   London, UK
Spring Week Participant   April 2025

- Selected to participate in Jane Street's FTTP, a one-week program focused on trading fundamentals, market making, and quantitative problem solving.
- Achieved a **5x return** by arbitraging commodities in a fast paced trading floor simulation, applying expected value calculations to manage risk.

Loby, A Roommate Matching App   London, UK
Software Engineering Intern   Nov 2024 – Feb 2025

- Designed and trained an XGBoost model that predicts roommate compatibility; delivered 99% accuracy across precision, recall and F1 on 10k historical matches.
- Wrote over 50 unit and integration tests for Flask APIs and shipped multiple production bug-fixes (authentication edge cases, off by one fixes, SQLAlchemy ORM query bugs)

Skills: C++, Python, CUDA, Flask, XGBoost, NumPy/Pandas, ML, Probability

Awards and Achievements

- Represented Ghana at the **International Mathematical Olympiad (IMO)** 2023.
- **Ranked 1st** at the Ghanaian National Math Olympiad (MISE Solve-A-Thon) for **three consecutive years**.
- **Honourable Mention** and **First Runner-up Team** at the South African and Indonesian International Math Competitions for **three consecutive years**.
- Achieved **Distinction** and ranked **3rd** in India for Euclid Mathematics and Canadian Computing Contest.

Projects

- **CUDA MCTS Autoplayer**: Accelerated a Monte-Carlo-Tree-Search autoplayer for 3-D Connect-4, achieving a **20x** simulation-throughput speed-up over the single-threaded CPU.
- **SourceTracer AI - ICHack**: Built a **Flask web app** that lets users enter a topic, pick an article, then recursively prompts an LLM API to surface and rank prior sources (depth 3), streaming live progress to the UI.
- **Time-Based Image Encryption**: Built a time-lock encryption algorithm that enforces fixed decryption times and prevents parallel speedup.

Leadership & Teaching

Lead Department Representative, Computer Science   London, UK
University College London   Sep 2023 – Present

- Overhauled Discrete Mathematics module that faced issues for four years and initiated change of exam board policy for a year 2 module due to yearly grade deflation.
- Represented over 700 CS Undergrads, chaired Student–Staff Partnership Committee, aggregated cohort feedback, and negotiated solutions directly with programme leads and the Head of Department.

Mathematical Olympiad Teacher   Accra, Ghana
MISE   Feb 2023 – Mar 2023

- Mentored Ghana Junior Math Olympiad finalists in advanced problem-solving techniques.
- Taught Algebra, Geometry, Number Theory, and Combinatorics for 8 hours daily.