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EDUCATION

University of Oxford (BA (Hons), Mathematics and Statistics), Oxford, UK

- Fellow of the SDG Impact Lab, to advance UN SDGs via impact-driven projects; First-ever undergraduate selected
- Women in CS Scholarship from Bending Spoons, for merit; 1% (20/1600) under&postgrad in Europe, sole in UK
- Catherine Hughes Grant from Somerville College, to fund initiatives for intellectual curiosity and social conscience
- Inaugural AI UK Scholar at Oxford Womxn in Computer Science, for leadership and service; Sole undergraduate

BASIS International Schools (High School Diploma with High Honors), Huizhou, China Sep 2018 - Jun 2022

- Inaugural Global Excellence Student Scholar: full-ride merit scholarship with living stipend, USD\$150k
- SAT 1600/1600; Completed 16 advanced placement (AP), 6 capstone, and 4 honors courses

RELEVANT EXPERIENCE

Trading and Risk Management Academy, Qube Research & Technologies (Oxford, UK) Nov 2024 - Present

- Completed four-week intensive course on data, models, risk, portfolios; Design and manage trading algo in teams **Quantitative Research Internship,** Chengqi Asset Management (Shenzhen, China)
- Developed an alpha with Sharpe ratio 2.33 using statistical data analysis and ML feature selection algorithms
- Expanded 4-feature dataset via transformations and Shapley analysis; Retained top features and generated alphas
- Customised and optimised 10+ configuration scripts (.xml) to streamline and automate alpha implementation

Student Research (College-Funded), *Dept of Computer Science*, *Uni of Oxford* (Oxford, UK)

- Modelled voting power dynamics using the Shapley-Shubik power index in weighted voting systems
- Analysed decision-making under uncertainty by evaluating coalition probabilities and pivotal voter influence
- Investigated fairness and efficiency in voting rule design, optimising system robustness and equity

AI Development Micro-Internship, Legal-Pythia (Remote)

Dec 2023

• Tested and implemented large language models with explainable AI to parse and analyse legal databases

T-Spark Challenge: AI+ Human Hand Liveness Detection, Tencent (Shenzhen, China)

- Developed anti-spoofing methods for Palm Payment with gesture recognition, multi-touch analysis, and 3D vision
- Optimised focus detection with Laplacian Transform to counter screen reflections and moiré patterns
- Enhanced user experience by simplifying gestures and interfaces, integrating iterative user feedback

T-Spark Challenge: Short-Form Video Recommendation, *Tencent* (Shenzhen, China)

- Optimised short-form video recommend algo with neural networks; Boosted engagement via feature engineering
- Analysed 100k user behaviour records (e.g., click-through rates, swipes) to refine features and enhance targeting
- Implemented ML architectures (Wide & Deep, GBDT, FCNN); Tuned hyperparameters; Surpassed benchmark

T-Spark Future Academy, *Tencent* (Shenzhen, China)

Jun 2020 - Oct 2020

- Placed 4th / 1300+; Received Tencent YouTu AI Research Lab internship offer (computer vision, flexible start)
- Developed a dietary app; Built/optimised a food recognition AI after preprocessing/augmenting a public dataset **Discover,** Citadel | Citadel Securities **Spring into Tech,** J.P. Morgan **Insight: Trading**, *Jane Street*

SELECTED VOLUNTEERING

Demonstrator. GirlsWhoML

Dec 2024 - Present

Undergraduate Representative, Oxford Womxn in Computer Science, Uni of Oxford May 2024 - Present

 Co-launched inaugural mentorship programme; Organised undergrad dinner for 35; Host fortnightly Sip & Solve President 24-25 (Publicity/IT 23-24), Maths Undergrad Rep Cmte, Maths Inst. Uni of Oxford Nov 2023 - Present

• Boosted survey participation by 50%; Resolved scheduling conflicts; Advocated for equitable course access

• Revamped website and options fair; Secured annotated project examples; Piloted fairer grading algorithms

JCR IT and Communications Officer, Somerville College, Uni of Oxford

• Ran the JCR (undergraduate student body) website and social media; Posted weekly Instagram updates

- Supported democratic processes for publishing student body statements; Assisted College in crisis communications **Co-President**, Somerville Mathematical Society, Somerville College, Uni of Oxford Aug 2023 - Jul 2024

• Co-organised monthly events for 150+ members; Ran course options Q&A; Promoted maths activities in Oxford

Lead Curriculum Developer, Women Who Code: Data Science Dec 2023 - Apr 2024

• Developed lesson plans/guides for inaugural mentorship program supporting 50 mentees; Gathered testimonials

• Hosted and moderated monthly interviews with industry experts

OLYMPIADS

Global 12th Place Among Women, American Invitational Mathematics Examination (AIME) Mar 2021 • AMC/AIME score surpassed USAMO cutoff, but ineligible for further IMO consideration due to non-U.S. residency **Distinguished Honor Roll / Top 1%**, American Mathematics Contest 12 (AMC 12) Feb 2021 **Global 7th Place**, *American Regions Mathematics League (ARML)* Oct 2020 **Gold Division Placement**, USA Computing Olympiad (USACO) Feb 2020

Programming Languages: Python (preferred); R, MATLAB, SQL, C++, Java, JavaScript (prior experience); ETeX Natural Languages: English, Mandarin Chinese (native); Dutch, Cantonese Chinese (elementary)