





Oliver Ip


Computer Science Finalist

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LinkedIn

Github

Portfolio



Profile

Computer Science finalist with hands-on experience in Python, TypeScript, and machine learning, building real-time analytics dashboards, AI-assisted applications, and production web systems. Applying to MSc Finance/Finance with Data Science to deepen quantitative methods and scale data-driven products for capital markets and risk analytics.



EDUCATION

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| BSc Computer Science , <i>University of Bath</i> Predicted classification 2:1 • Key modules: Machine Learning, Reinforcement Learning, Data Structures and Algorithms | 2022 – 2026 |
| International Baccalaureate , <i>St. Paul's Co-Educational College</i> Final Grade: 44/45 Top Subjects: Mathematics, Chemistry, Economics | 2016 – 2022 |
| A-Levels Mathematics , <i>Pearson GCSE</i> Final Grade: A* | 2021 – 2022 |

TECHNICAL SKILLS

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| Finance & Quantitative Tools Time-series analysis, feature engineering, regression modeling, backtesting, TradingView API | Programming Languages Python, Java, JavaScript/TypeScript, C, SQL |
| Web & Frameworks NestJS, Vue.js, React/Next, Node.js, Angular | Data Science & ML scikit-learn, TensorFlow, PyTorch, NLP, Computer Vision |
| Cloud & DevOps AWS, Docker, Kubernetes, Netlify | Other Tools Git JIRA, Tableau, Supabase, TradingView, Twilio, Photoshop, DaVinci Resolve, Blender |





TECHNICAL PROJECTS

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| Personal Project - BTCUSD/MSTR Monitor  • Engineered a real-time BTC/USD dashboard with funding-rate, open-interest and multi-horizon momentum indicators; auto-refreshes every 5 min via Binance and TradingView APIs; built fail-over for API rate limits; evaluated 10 K+ signals daily using rolling-window tests, boosting directional accuracy by 15% over baseline. | 08/2025 – Present |
| Personal Project - Public Sentiment & Macro Forecast  • Developed an automated sentiment pipeline processing ~200 headlines/hr from Reuters/CNBC RSS and Google Trends; applied WoW z-score normalization to generate same-day directional probability and range forecasts; instrumented logging to achieve a 72% hit-rate vs. prior-close. | 04/2025 – Present |
| School Project - AI/Voice Analysis • Built an AI-driven voice analysis backend using offline speech-to-text and a machine learning model for real-time risk classification. Working in a group environment taught me to delegate tasks and resolve conflicts constructively. | 2023 – 2024 |
| School Project - Mobile App Development • Developed a health and money tracker Android app with Android Studio, utilizing Scrum, Object Oriented Analysis and Android activities. Was the lead designer and beta tester of the team, involving bug fixing in Java, Photoshop UI design. | 2022 – 2023 |

EXPERIENCE

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| Science Tutor, Oxbridge Tutoring <ul style="list-style-type: none">• Deliver A-Level Biology, Chemistry, and Physics lessons to secondary school students. Also Co-founded E-Concept (2021–2022), providing voluntary English, Maths, and Economics tutoring and holistic counseling to underprivileged youth.• Donated all earnings to NGOs like Food Angel and honed my curriculum design, empathetic communication, and leadership. | 03/2025 – Present |
| Software Engineer, Spark Layer <ul style="list-style-type: none">• Contributed to the development and optimization of e-commerce solutions using PHP, Golang, and TypeScript.• Implemented new features, and played a key role in improving code quality to enhance user experience.• Collaborated closely with cross-functional teams to ensure timely delivery of high-quality software. | 2024 – 2025 |
| Summer Internship, I-Charge Solutions International Company Limited <ul style="list-style-type: none">• Received enriching on-site training, assisted with new software installation on electric vehicle chargers, and conducted diagnostic testing to resolve issues, equipping me with well-rounded technical and troubleshooting expertise.• Other tasks included data entry and SQL queries to organize maintenance records, as well as designing brochures and flyers—an experience that enhanced my creativity and prepared me for future software development roles. | 06/2023 – 09/2023 |

LEADERSHIP & VOLUNTEERING

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| Vice President and Software Developer, Team Lemme  <ul style="list-style-type: none">• Built and scaled a full-stack POS & kitchen management system processing ~500 orders/day with 99.9% uptime; shipped POS, kitchen screens, auth and analytics modules; reduced order-to-serve latency by 30% (Next.js, TypeScript, React, Supabase)• Developed the pop-up café financial plan forecasting £2,462 revenue and 83% gross margin (within £30 of actual) to repay a £500 loan; led team to win Overall Champion and Best Marketing Campaign—attracting visits from the Mayor and Vice-Chancellor (Excel). | 03/2025 – 08/2025 |
| CSO & Co-Founder, K30's Dekodify.io  <ul style="list-style-type: none">• Co-founded K30 Creator, an AI-driven A-Level exam decoder that ingests text, PDF or images and generates guided, step-by-step MCQs with contextual hints and a personal progress dashboard (React, Vite, Netlify, Supabase, Python).• Developed Azure-powered OCR and multimodal AI pipelines to parse exam content; implemented hint refinement, solution summarization and analytics for question history, achievements and skills radar (Azure Cognitive Services, Python). | 12/2024 – Present |
| Core Member & Volunteer Tutor, E-Concept  <ul style="list-style-type: none">• Launched and ran a free tutoring programme in English, Maths and Economics for underprivileged youth; designed curricula, delivered weekly lessons and donated all proceeds to NGOs such as Food Angel, honing curriculum design and empathetic leadership skills. | 2021 – 2022 |
| Technical Lead, Asklepian Medical Society  <ul style="list-style-type: none">• Directed a team of technicians to produce polished video and graphic assets for student-run medical events; created multimedia content (intro videos, animations, posters) using DaVinci Resolve and Blender, boosting event attendance and engagement. | 2020 – 2022 |
| Volunteer, RedCross, HandsOnHK, FoodAngel <ul style="list-style-type: none">• Mentored at-risk youth; led a soap-recycling drive to create hygiene kits; conducted regular welfare visits to isolated seniors—enhancing community health and social support. | 2016 – 2022 |

INTERESTS

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| Languages English (bilingual), Cantonese (native), Mandarin (fluent), Japanese (basic/N5) | Sports and music avid swimmer and cyclist, grade 8 ABRSM in piano and saxophone, cultivating discipline and focus. | Creative pursuits Developing software tools and AI models in free time to refine coding, statistical modeling and market-analysis skills. |
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