

# BRYAN WEI XUAN CHEONG

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## EDUCATION

**Imperial College London** – MSc in Business Analytics (Predicted Distinction) Aug 2024 - Aug 2025  
*Modules:* Generative AI, Statistics & Econometrics, Financial Analytics, Energy Analytics, Digital Marketing Analytics, Text Analytics, Network Analytics, Logistics & Supply Chain Analytics, Optimisation & Decision Models, Data Visualisation

**University College London** – BSc in Computer Science (2:1, Grade 68%) Sep 2021 - Jul 2024  
*Modules:* Advanced Machine Learning, Mathematics & Statistics, Algorithms, Object-Oriented Programming, Software Engineering

## SKILLS

<b>Programming</b>	Python, SQL, R, SvelteKit, TailwindCSS, HTML (Proficient); Java, Haskell, C (Basic)
<b>Libraries</b>	pandas, scikit-learn, Plotly, XGBoost, PyTorch, statsmodels, SHAP, FastText, VADER, SciPy, spaCy, NetworkX
<b>Technical Tools</b>	Git, AWS, Docker, PostgreSQL, ETL, Power BI (DAX, Power Query), Excel, Google Analytics, VWO, Selenium
<b>Languages</b>	English (Native), Cantonese (Fluent), Mandarin (Intermediate), Malay (Intermediate)

## PROFESSIONAL EXPERIENCE

**Anavio Capital Hedge Fund** London, UK  
Equity Analytics Intern – Long/Short Strategy Jul 2023 - Sep 2023

- Built a Python screening dashboard integrating 15+ capital-efficiency metrics to support uncorrelated long/short strategies
- Scaled coverage from 10 to 200 tickers, automating 80% of manual work to accelerate insight delivery
- Enhanced pipeline robustness with 100+ Pytest tests and six error-handling decorators, reducing downtime and debugging
- Translated complex logic into clear flowcharts and wireframes for management, halving delivery time and improving alignment

**GSE-M Technology Sdn. Bhd** Malaysia  
Enterprise Resource Planning (ERP) Assistant May 2023 - Jul 2023

- Partnered with ERP users across five departments to gather 30+ requirements, identify operational challenges, and find critical bugs
- Tailored ERP functionalities with consultants, improving process efficiency by 25% and aligning system with departmental needs
- Co-led daily conference room pilots, training 90 employees to ensure smooth adoption and usage of the new ERP system

**British Red Cross** London, UK  
Data Analyst Sep 2022 - Apr 2023

- Developed a Power BI app with 20+ interactive dashboards to analyse complaints data, delivering actionable insights to support teams and senior stakeholders; reduced resolution time by 50%
- Built an ETL pipeline in Power BI Dataflows to extract data from four sources, modelled into fact and dimension tables, and leveraged DAX for geographical drill-downs and slicing, enabling consistent and scalable reporting
- Secured future development by presenting a streamlined issue resolution system along with a deployment manual to the Head of Data

**Subplace (B2C Subscription E-commerce Platform)** Malaysia  
Software Reliability Intern Jun 2022 - Aug 2022

- Cut maintenance time by 60% via modular templates and systematic test cases, improving platform stability
- Resolved 200+ issues and introduced agile, test-driven development practices to enhance reliability and support continuous delivery

## PROJECTS

**Multi-Channel Attribution (The Bonus Project!)** Analysed 3.3M contacts and 240K orders to evaluate catalogue vs. email campaign effectiveness using PostgreSQL and Python. Computed response rates under first-, last-, and linear-click attribution, revealing catalogue’s six-times higher conversion on average. Segmented customers into 125 RFM cells, calculated CLV with retention-adjusted discounting, and recommended cost-effective targeting strategies by estimating breakeven cost per email relative to catalogue

**Portfolio A/B Testing and Analytics.** Ran A/B tests with VWO comparing (1) a text-only vs personal-image and (2) presence vs absence of clickbait on the Download CV button on the hero page. Drove traffic via social media and Selenium bots, launched a Google Ads campaign with targeted keywords, and tracked engagement events (e.g. CTA clicks)

**Beat The Bookies.** Engineered a Premier League match predictor using 18 features across 5 seasons (earlier data showed performance decay), achieving 51% validation and ~40% test accuracy with CatBoost. Feature-engineered Pi-rating variants with tuned hyperparameters and selected key variables using SHAP. Explored pre-game sentiment as a predictive signal using LLMs and the Nitter API

**RIE Cleaning of Lagged Covariance Matrices.** Developed a cleaning algorithm for high-dimensional lagged covariance matrices using Rotationally Invariant Estimators (RIEs), correcting spectral distortions via the Marchenko-Pastur law. Achieved 100% noise reduction in AR(0) models and ~20% signal-to-noise improvement in AR(1), with larger gains as dimensionality increased. Applicable to portfolio risk modelling, time series forecasting, and signal processing

**Text Analytics on Song Lyrics.** Explored drivers of song popularity by modelling 40,000+ lyrics using LASSO with n-grams and FastText embeddings. Identified genre trends in explicitness and themes, and compared popular artists’ album similarity using averaged word embeddings with PCA-filtering and cosine similarity to reveal deeper semantic shifts

**Logistics and Supply Chain Optimisation Game.** Simulated a multi-region supply chain using hybrid demand forecasting and cost-benefit analysis to guide factory and warehouse expansion. Applied adjusted reorder points and Silver-Meal heuristics to manage seasonal inventory, securing 2nd place in Imperial’s cohort

**Energy Demand Forecasting Model.** Developed and tuned XGBoost model to forecast UK electricity demand, engineering features like Heating Degree Days, holiday dummies, and temporal lags. Achieved 96.3% R<sup>2</sup>; generalises well with low residual autocorrelation

**TetrisAI.** Implemented a Tetris heuristics evaluation AI, scored 28,000+ points using 400 blocks, 80th percentile in UCL’s cohort

**AWARDS AND CERTIFICATIONS**

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<b>AmplifyME</b> – Mergers and Acquisition Simulation with UBS	Feb 2025
<b>Boston Consulting Group</b> – Introduction to Strategy Consulting (Forage)	Oct 2024
<b>Goldman Sachs</b> – Software Engineering Experience Program (Forage)	Jul 2024
<b>Harvard University</b> – CS50x Puzzle Day: Perfect Score (Teams of Six, Top 13% in the World)	Apr 2020