Martin He

Surbiton, Greater London, United Kingdom
martin.he@baves.city.ac.uk | martin.he543@pm.me
(+44) 7487661881

PROFILE

I am a second year undergraduate studying Business Analytics, with Finance, at Bayes (formerly Cass) Business School, City University, of London. My interests lie at the intersection of cutting-edge machine learning and quantitative finance, driven by hands-on experience in NLP and semantic search engineering at Perforce Software, and ongoing research in ML, AI, and computer vision at City Optimise Society. With a prior foundation in Physics at Imperial College London, I bring a rigorous analytical mindset to complex, data-driven problems. I am proficient in Python, SQL, and PyTorch, and am passionate about applying scalable AI solutions to real-world business challenges.

EDUCATION

Bayes Business School — 2024 – Present
BSc in Business Analytics with Finance — London, UK

- A course covering supervised and unsupervised ML, deep-learning, AI-powered analytics and financial modelling. Emphasis on using financial and business analytical knowledge to maximise business potential through data-driven solutions.
- **Relevant Modules:** Financial Econometrics (98%), Mathematics for BA (88%), Finance & Investment (80%), Supervised ML (83%), Applied NLP (76%), Business Economics (75%), Data Wrangling & EDA (80%), Unsupervised ML (74%).

Imperial College London — 2021 – 2023
BSc in Theoretical Physics — London, UK

Hampton Court House / Tiffin School — 2014 – 2021
A Levels: Mathematics, Further Mathematics, Chemistry, Physics

- 4 A*s at A Level and 5 As at AS Level. 14 Level 9s at GCSE (equivalent A**). DofE Silver.

SKILLS & KNOWLEDGE

- **Programming:** Python (NumPy, Pandas, SciPy, Matplotlib, Seaborn, PyTorch, TensorFlow, Scikit Learn, FastAPI, StatsModels, Spacy, NLTK, PySpark), R (GGPlot, Tidyverse, Tidyr, Tidymodels, Dplyr), HTML5, CSS (MUI, Bootstrap), JavaScript (JQuery, React), Git.
- **Databases:** SQL, MySQL (Workbench), PostgreSQL, MongoDB.
- **Tools:** GitHub, Perforce, Power BI, VSCode, LaTeX, Tableau (Desktop, Prep Builder), Docker (File, Compose), Jira, Confluence, EViews.
- **Business & Finance:** Financial Mathematics, Portfolio Theory, Investment Valuation, Financial Statements, Modelling, Fintech, Regression Analysis, Derivatives, Equities, FX, Bonds, Applied NLP, Supervised/Unsupervised ML, Deep Learning.
- **Soft Skills & Others:** Report Writing, Presentations, Time Management, Critical Thinking, Teamwork, Customer Interaction, Organisation, Collaboration, Written Communication, Agile Methodology, Test-Driven Development, Unit-Testing, Waterfall Model.
- **Languages:** English (Native), French (Advanced, B2+), Chinese (Advanced, HSK5+), Japanese (Intermediate), Italian (Late Beginner, A2), Latin (GCSE), Classical Greek (GCSE), Spanish (Beginner, late A1), Norwegian (Beginner, A1).

EXPERIENCE

Perforce Software — Jul 2025 – Sep 2025
Summer Internship (Supervised by Perforce Search Team)

- Designed and prototyped a semantic search engine using Python, NLP, BERT and FastAPI.
- Carried out vector-based retrieval for both sentence and image search.
- Built and containerised the system using Docker for reproducibility.
- Used FastAPI-based micro-service as the interface layer.
- Completed performance evaluation between vector-based search and traditional keyword search.
- Utilised Perforce source control, attended Agile meetings, and authored reports for Confluence.

Freelance, Private Tuition — Jun 2019 – Jul 2024
Tutoring in Maths, Physics, Classics, and Music. UCAS-related preparation.

- Designed learning resources, based on Socratic Method for tutoring sessions.
- Tutored students have gone on to study at St. Andrews, UCL, University of Cambridge, KCL, etc.

Sales Associate — Feb 2020 – Aug 2021
Adult Department, and Stock-Room.

INTERESTS & AWARDS

- **Recipient of Bayes Academic Scholarship** - Awarded to top 10%.
- **Bayes, Business Analytics - Data Olympics Winner 2025**, with £400 cash prize.

- **Member of City Optimise Society, Bayes AirQ (Quant Society)**.

- **Personal:** Self-starter and team player; enjoy piano, gym, long-distance cycling, and running. I am interested in typography.

PROJECTS

- Hello!