

# Guillaume Amann

South Kensington, London | +33 6 46 19 65 93 | [gja23@ic.ac.uk](mailto:gja23@ic.ac.uk)

## EDUCATION

**Imperial College London, London, United-Kingdom**

2023 - 2024

Master of Science – Transport Engineering

Group project: Commissioned by the World Bank to leverage AI models (CNN) for road attributes detection on images.

Research paper: Benchmarking the impact of disruption over delays in public transport using statistical and machine learning models on large-scale high-dimensional data

**ESTP Paris, Cachan, France**

2021 - 2024

Master of Engineering, *Diplôme d'Ingénieur* - Civil Engineering

Relevant modules: Finite Element Method & Mathematical programming – Mathematics for Engineer – Urban, Labor, Public & Private Law

**Lycée Blaise Pascal, Clermont-Ferrand, France**

2019 - 2021

Preparatory Class, MP – Advanced Mathematics and Advanced Physics

**Worcester Polytechnic Institute, Worcester, USA**

July 2018

"Frontiers" Summer Program - "Art of Science" Architecture and Interactive Media development

## WORK EXPERIENCE & SOCIETIES

**Portfolio Optimisation Analyst** | Imperial College Investment Soc., Queen's Tower Capital

October 2023 – July 20234

- Tailored a portfolio according to Modern Portfolio Theory (Python)
- Hedged the portfolio with options priced via Black-Scholes model
- Programmed momentum-based strategies and execution algorithms

**Equity Research Analyst** | Imperial College Investment Soc., Queen's Tower

October 2023 – January 2024

- Conducted in-depth equity research on Bloomberg Terminal
- Evaluated potential upside through Trading comps and Discounted Cash Flow (DCF) valuation methods
- Presented analysis results to the fund, leading to the realisation of a 45% upside over a 6-month period

**Operational Excellence Engineer Assistant** | SPIE Oil & Gas, Sub-Saharan Africa

June 2023 - September 2023

- Harmonised global workforce data (300+ employees across different countries) (Pivot tables)
- Developed a stochastically normalised model to improve salary forecast (PowerBI analysis)
- Revamped Excel file to refine tendering for multi-million-dollar projects (VBA macros, formula optimisation)

**Assistant site foreman and site manager** | Colas Rail, Line 15 of Grand Paris Project

June 2022 - August 2022

- Designed automated spreadsheets to track construction activities and generate progress reports
- Managed safety risks (gas leak, crane fault, ... costs of delay over €100,000)

## PROGRAMMING LANGUAGES (and associated personal projects)

**Python** Bond pricing via Ornstein-Uhlenbeck model and parameter calibration with statistical learning

**R** Graph theory and transactional network analysis for financial fraud detection

**OCaml** Derivative pricing via Black-Scholes model and Monte Carlo solver & Risk Management tool (Greeks, VaR)

**C++** Quant Library: Collaborated on the creation of various financial instruments pricers and OOP solver engines

**SQL**

**Git/GitHub**

**VBA**

**Linux**

**Bash/Zshell**

**HTML/CSS/JavaScript**

**Azure**

## CERTIFICATIONS & FOREIGN LANGUAGES

Contract Law: From trust to promise to contract, Harvard Law School X edx.org

June 2023

Bloomberg Market Concepts (BMC) and ESG certificates, Bloomberg for Education

October 2022

French: Native speaker | English: Fluent | Spanish: Conversational | German: Notions | Arabic: Notions