# Antoine Divet

## 3<sup>rd</sup> Year Computer Engineering Student at Imperial College London

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#### **Education**

#### MEng Computer Engineering – Imperial College London

Sep. 2023 – Jul. 2027

2<sup>nd</sup> year modules: Discrete Mathematics, Mathematics for Engineers, Signals & Systems, Software Systems, Communications, Control Systems, Information Processing, Instruction Architecture & Compilers, Intro to MATLAB

#### Lycée International de Londres Winston Churchill, London

Sep. 2020 - Jul. 2023

French Baccalaureate with Highest Honours: 20/20 in Mathematics, Physics-Chemistry & Computer Science, EPQ (A\*)

### **Work Experience**

#### StoneX – Software Developer Summer Intern (London)

Jun. 2025 – Aug. 2025

- Collaborated on a market volatility project
- Led the development of a full-stack application for the Credit Risk team to enable dynamic credit limit adjustments. Built a SQL database, developed a .NET API in C# (using multilayered architecture), implemented a React-based front end, and integrated Databricks for cloud-based data processing

#### ICBC Standard Bank - FIC Settlements Summer Intern (London)

Jun. 2024 - Sep. 2024

- Automation of settlement reports for FX confirmations & fails reports for securities using VBA
- Management Information project on quantifying and linking settlement fails & disruptions using several metrics, as well as merging daily data and risk from different teams for management
- Recalculated the team's STP rate, tracked daily trade volumes, quantified manual interventions to give senior management a better view of the team's activities

# IMC Trading – Trading Masterclass (London)

Oct. 2024

Developed futures pricing algorithms and American options (calls & puts) pricing algorithms using Python

#### Spring Weeks at Citadel, The D.E. Shaw Group & Susquehanna International Group

2024-2025

- Participated in Quant Challenges & Trading Simulations in AmplifyME
- Developed a stock pricing algorithm in Python, took part in market making games

#### Trading Workshops & Masterclasses at Optiver, Da Vinci, Moody's & MUFG, M&A Workshop at Deutsche Bank, QRT & IBM hackathons 2023-2024

- Gained an insight into options, market making & high frequency trading
- Learnt about credit analysis, financial modelling/research and how big data & tech is leveraged in finance
- Learnt about Naive Bayes classification & ML algorithms: XGBoost, Random Forest, logistic regression

#### **Challenges & Awards**

Top 10%, Kaggle Titanic ML Competition

Feb.2025

11th place, French Math Olympiads (Northern Europe)

Mar. 2022

Merit Certificate, Maclaurin Maths Olympiads

2021

- 2-time top 0.2% of French maths competition, top 2.5% of British Physics challenge
- Chess: won several chess tournaments including the U14 London Junior Chess Championship
- Swimming: 2-time English National swimmer, Camden Outstanding Individual Boy award 2019

#### **Projects**

RISC-V 32i CPU: Co-created a fully functional processor in SystemVerilog which implements 5-stage pipelining. Developed the data memory, cache (both one-way and two-way set associative) and branch prediction

Balancing Robot: Full-stack control system for a robot with real-time browser UI (JavaScript) and manual/autonomous modes. Deployed a serverless AWS backend (DynamoDB, S3, Lambda) for telemetry, storage, and event handling.

FPGA-based Video Game (Laser Grid): Cooperative Unity-based puzzle game using accelerometer input and AESencrypted FPGA hardware. Built a multithreaded C++ TCP server and implemented a scalable DynamoDB schema on AWS EC2 to support real-time stats, achievements, and secure login.

C90 Compiler: C90 compiler targeting 64-bit RISC-V featuring a custom lexer, parser, AST, semantic analysis, and code generation. Managed scope, types, and structs; used Docker for environment consistency and Jira for project tracking.

#### Skills & Languages

Programming: Python, C++, SQL, C#, JavaScript, Assembly, SystemVerilog, MATLAB, VBA

Frameworks/Libraries: React, Dash, Plotly, Flask, .NET, NumPy, SymPy, Pandas, Matplotlib, scikit-learn

Tools/Technologies: Git, Databricks, Docker, Linux, Visual Studio, Jupyter, Azure/AWS

Data Science: Pandas, SQL, Data Visualization, Feature Engineering (Kaggle, Mathematics for Machine Learning, OOP

for C++, Databases & SOL with Python, React Basics, Intro to HTML/CSS/JavaScript (Coursera)

Finance: Python & Statistics for Financial Analysis, Trading Algorithms (Coursera), Skills for Business (Forage)

Languages: English & French bilingual, working proficiency in Spanish.