

# Hoang C Vu

COMPUTING · UNDERGRADUATE STUDENT

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## Education

### Imperial College London

London, UK

M.ENG. IN COMPUTING

Oct 2019 - Exp. Aug. 2023

- Introduction to Computer Systems, Architecture and Databases
- Discrete and Continuous Mathematics
- Graphs, Algorithms and Analysis
- Please email me your contact to get access to my First Year eTranscript

### Concord College

Shrewsbury, UK

ADVANCED GCE LEVEL

Sep 2017 - July 2019

- A\*A\*A\* in Maths, Further Maths, Chemistry and Physics A Level, Grade 2 in STEP 1 taken in first year of A Level
- Principal Award for Highest Overall Result in AS Level with an UMS of 99.6
- Second Place in Midlands Regional Heat Round for Analyst Competition (Chemistry Practical Competition)

## Work Experience

### Arabesque AI

London, UK

SOFTWARE ENGINEER INTERN

July 2020 - September 2020

- Led the integration of concepts of observability into legacy and new systems through the use of telemetry data
- Directly involved in redesigning and rewriting *ETL pipelines* to optimise cost to performance ratio by employing serverless architecture using mostly **Cloud Run** and **Cloud Function** services to replace high frequency **Kubernetes** cron job
- One of the main developers for transforming current system into Infrastructure as Code (IaC) and Continuous Integration/Continuous Deployment (CI/CD) for several components of the system with **Google Deployment Manager (DM)** and **GitHub actions**
- Responsible for delivering monitoring and alerts knowledge and best practices to the rest of the team
- Exposure to Machine Learning in Finance, specifically incorporating Artificial Intelligence into predicting stock market movement and portfolio customisation
- Heavily involved with designing and managing security access for through both enforcing the use of **DM** and the use of *service accounts* appropriately

## Projects

### Hackathon

ICHack20

OUTING

February 2020

- Successfully built a website for organising social events for specifically small groups of friends
- Overcame a huge challenge of writing a fully functional website from scratch and integrated with some of Google's most popular APIs
- Built a fully interactive website from scratch including built-in chat window with Google NLP APIs to recognise payment, directions and location information.

### ARM11 Emulator and Assembler & Extension

London, UK

END OF FIRST YEAR C-PROJECT

April 2020 - June 2020

- Worked on a group project to emulate an ARM1176JZF-S processor using C
- Responsible for researching and writing abstract data structures to best optimise performances of different components of the system
- Directly involved with the design of the game (called **Tetris Plus Plus**) including game logic and execution flow as well as mainly responsible for writing the interface for the game using **ncurses** library
- Built an AI-bot powered by Q-Learning, integrated into the game
- Awarded the **Best Overall C Project** by the Imperial Department of Computing

## Skills

### Tools

Self-learn

SOFTWARES & PROGRAMMING

Ongoing

- Languages: C, Haskell, Java, Python, SQL, x86-64 Assembler
- Web development: ReactJS, JavaScript, HTML5
- Cloud Computing: Google Cloud Platform, Micro-services serverless architecture, Kubernetes (*minimal experience*), Infrastructure as Code using Deployment Manager and Github Actions
- Others: OpenTelemetry, Prometheus, OpenGL