# ANDREW J. YOUNG

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#### **EDUCATION**

## Imperial College London

Computer Science and Mathematics (BEng) – 2-1 honors

## Queen Elizabeth's School, Barnet

A-levels: 4 A\*s (highest); GCSE: 13 A\*s (highest)

#### **EXPERIENCE**

## Global Technology Infrastructure, JPMorgan Chase

from 2019

 $Software\ Developer$ 

London, UK

- · Worked in an agile team managing virtual service infrastructure using DRF. Built an audit tool used for managing cloud resources, reporting, event raising. Also used compilation and parsing, identity, database management, SQL, python, cloud deployment and architecture.
- · Built and managed a consumer facing API. 0 to production API in 3 months.
- · Trained in agile; certified in application security and threat modeling.
- · Trained and worked with new joiners to make them full productive team members.

The Mix
Software Developer
London, UK

· Worked in an agile team implementing search functionality across their existing APIs using ElasticSearch and AWS lambdas, triggered by Cloud Watch events.

#### Workspace analytics, BP

2018

 $Data\ analytics$ 

London, UK

· Given 3 months of employee data, and did data analysis and machine learning on this data to present to clients. Used python and R, visualization, cloud (Azure), and SQL.

#### Quantitative Risk (qRisk), JPMorgan Chase

2018

Software Developer

London, UK

· Worked on an agile team writing financial technology for an optimized batch process for calculating risk and pricing. Written in python, and using Kafka, database management (Cassandra), and legacy code and APIs.

#### Opesci Group, Imperial College London

2017

Research Intern

London, UK

· Contributed to the team's stencil calculation package. Used python and jupyter notebooks to solve complex ODEs. Combined math and computing knowledge, and wrote technical tutorials for users.

Hoteling 2016

Asakusa Guest House Manager

Tokyo, JP

 $\cdot$  Managed a 4 story guest house, developed a language acquisition program for international students, and performed English-Japanese-Chinese translation.

## PROJECTS

**Symboard** (**Python**) A text-based keyboard creator which allows users to create fully functional, UNIX compatible keylayout files using a concise, user-defined specification.

MVL (Multi Valued Logic) (Python) Wrote a package to implement multi valued logic systems in python.

FlowMonster (Java, Spring Boot) Designed and wrote a trading robot to participate in market simulations against other teams.

An investigation into membership inference attacks on big data (BEng thesis) Implemented and optimized a membership inference attack using supervised and unsupervised machine learning. Used 2 data sets (taxi and telecoms data) to determine if an individual was sampled to calculate a summary statistic. Analyzed the performance of the attack under different conditions.

Quest.io (Javascript) Made a web application using React Native, mongoDB, and Google APIs for tourist groups to plan daily travel routes. Implemented voting, a chat, and a route planning algorithm.

*Pintos* (C) Built on top of a legacy code base in order to produce a fully functional concurrent OS.

**PlugInBaby** (Python, node.js) An IOTA (IoT cryptocurrency) application which finds charging stations and automatically transacts for electricity on the IOTA tangle. Designed in cooperation with the IOTA developers.

WACC compiler (C) Designed and built a compiler and code-generator from WACC into Arm11.

Arm11 compiler (C) Built a compiler into C for the Arm11 language with code compiling on a raspberry pi.

## **ACHIEVEMENTS**

2019"FlowMonster" finalist Won my team's division and progressed to the finals in a trading robot competition.

2017 IOTA Hack winner Designed and built the winning design, which finds charging stations and transacts for electricity automatically on the IOTA tangle.

2016 Built and launched an H-class high-powered rocket in a team of 4. Apogee was reached at 1.5 km before returning to ground in a state fit for reuse.

2016 Scored in the 94th percentile in the JLPT N2 exam.

2015 Completed the UCL-Japan Young Challenge, participating in a cultural exchange and Japanese language programs in the UK.

2014 President and founder of an ISSDC finalist team. Founded an independent finalist team to the International Space Settlement Design Competition. Elected company president at the national and international finals.

2014 Grade 8 Cello with distinction

## **SKILLS**

English Japanese Chinese French Spanish Polish German Native Fluent (C2) Intermediate (B2) Intermediate (B1) Basic (A2) Basic (A2)

Expert in C, Java, Spring boot, LATEX, Linux, Python, SQL, UNIX, Windows, Git, Jetbrains IDEs, Jupyter notebook, Vim,

**In-depth knowledge of** CSS, Haskell, Django, Django rest framework, Javascript, Prolog, R, x86 Assembly, PostgreSQL, Scikit-learn Gnu bison,

**Experience with** Kafka, Azure cloud stack, AWS, Cloud foundry, React (native), Dolphin (python), Devito (python),

Core competencies: Agile methodologies; Data science; Network, web, and application security (SQL, Javascript, PHP), Project management; Software architecture

**Typing**: 135 wpm (eng), 100 wpm (jpn)

First aid