ANDREW J. YOUNG

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EDUCATION

Imperial College London
Computer Science and Mathematics (BEng)

Queen Elizabeth's School, Barnet
A-levels: 4 A*s (highest) in Math, Further Math, Physics, and Chemistry; GCSE: 13 A*s (highest)

Interests (in no order): Algorithms (High-performance, high-assurance), Optimization, Security, Cryptography, Data science and ML

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   from 2019
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*
· 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)	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