Guolin Yang

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🎓 EDUCATION

Imperial College London, *Computer Science MEng* 🔗   Oct 2019 – Present | London, UK
Overall 1st
Relevant Modules: Algorithm Design and Analysis, Models of Computation, Mathematics II: Probability and Statistics, Computational Techniques, Computer Vision, Introduction to Machine Learning, Robotics, Theory and Practice of Concurrent Programming

Brighton, Hove & Sussex Sixth Form College (BHASVIC) 🔗   Sep 2017 – Jun 2019 | Brighton, UK
Mathematics (A*), Further Mathematics (A*), Computer Science (A), Physics (A)

💼 PROFESSIONAL EXPERIENCE

Bloomberg, *Software Engineering Intern*   Apr 2022 – Sep 2022 | London, UK
- Optimised market data ingest infrastructure by using multi-way partitioning algorithms developed in python and load-balancing ~100 machines, reducing the load on machines by up to 45%.
- Performed and automated the continual analysis of historical data to enable the team to swiftly adapt to market changes.

Imperial College Business School, *Software Engineering Intern*   Jul 2021 – Aug 2021 | London, UK
- Worked full stack, developing a system to connect tutors with 1000's of MBA students from around the world.
- Implemented a Python chat-bot using the MS Bot Framework SDK, MS Graph API and MS Azure.

📁 PROJECTS

Cryptic Crossword Solver, *Python, Django, NextJS, React* 🔗   Oct 2021 – Jan 2022
- Enhanced usability of two cryptic crossword solvers with a React frontend and a plethora of additional features such as auto-solving and hinting.
- Extended app by implementing an image recognition feature, using OpenCV, to allow users to upload their own crosswords from a picture.

A Really Smart Food App, *Python, NextJS, React, Heroku, Git* 🔗   Jun 2021 – Jul 2021
- Conceptualized and built a recipe website which resulted in a 30% reduction in food waste in testing.
- Employed the use of rapid iteration development, based on feedback from stakeholders, with a focus on human-centered design.

WACC, *Scala, ScalaFX, Git*   Jan 2021 – Mar 2021
- Built a compiler to translate the made up WACC programming language to ARM64 in Scala.
- Extended project by developing an IDE, with syntax highlighting, using ScalaFX and implemented compilation to x86-64.

PintOS, *C, Git, Valgrind, Make*   Oct 2020 – Dec 2020
- Built a simple operating system from a bare bones framework, with a focus on concurrency and memory management.
- Implemented kernel threads, scheduler, loading and running user programs, and virtual memory.

ARM11 Group Project, *C, Git, Valgrind, Make*   May 2020 – Jun 2020
- Implemented an ARM11 assembler and emulator tested with a memory leak checker and unit tests.
- Built an audio spectrum visualiser using FFTW and SDL which could be displayed on an LED matrix with a Raspberry Pi, as an extension.

🎨 SKILLS

Programming Languages *(Python, Java, Haskell, C/C++, Javascript and React, HTML/CSS, SQL, Scala, Groovy)*

Tools and Technologies *(Git, Linux, JUnit, Pytest, JavaFX, ScalaFX, MS Azure, MS Bot Framework SDK, MS Graph API, Make, Jenkins, Redis, Humio, Grafana)*

Languages *(English, Cantonese, Mandarin)*

🎭 EXTRA-CIRRICULAR

- Member of the London Blockchain Labs' Lab Team
- Member of the Imperial College Football Third Team
- GitCoin Kernel Fellow - Block II
- Volunteer staff at IC Hack 2019