



ANDREW GEORGIU

 [Github.com/A-Georgiou](https://github.com/A-Georgiou)

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 AndrewGeorgiou98@outlook.com

Programming Fluency:	C++, Python, JavaScript, ReactJS, Typescript, PHP, HTML, CSS
Programming Experience:	Haskell, C#, Java, TensorFlow, PyTorch, R, SQL, Apache Storm & Spark
Cloud Architecture Experience:	AWS, Google Cloud
Languages:	English (Native), Greek (Conversational)

EXPERIENCE

Software Engineer - Full Time - Google *Sep. 2022 - Present*

- Collaborating with my team to develop MapReduce feeds in C++ to address the challenge of processing and monitoring all of Google's internal traffic, often handling trillions of requests per day.
- Proposed and implemented system to streamline feed creation, which processes over ~120B graph edges per day. Reduced data freshness from ~72 hours to less than ~24 hours, earning a performance award for this significant improvement.
- Introduced a robust Queries-Per-Second (QPS) metric to evaluate graph coverage, enhancing assessment capabilities for the Digital Markets Act (DMA), a key attribute that over 50 DMA ready teams at Google now rely on for debugability.
- Created a critical attribute aggregation pipeline and an essential debugging dashboard, meeting DMA requirements and leading to the recruitment of both senior engineers and software reliability engineer to support this core compliance tool.

Software Engineer - Internship - Barclays *Jun. 2020 & Jun. 2021*

- Worked with the Global Payments - Faster Payments team to develop an analytical portal that identified the need for infrastructural upgrades by analysing processing payment volumes, amplifying the team's ability to manage increasing transaction volumes.
- Created a React platform with a Flask backend to process millions of volumetric payment data, generating visual graphs and a seasonal prediction model, which improved the team's capacity to forecast and plan for future data trends.
- Collaborated with the Cloud Infrastructure team to implement mutual authentication throughout their cloud infrastructure by creating Chef Cookbooks in Ruby, which interacted with Barclays CA to generate host certificates on EC2 instances, thereby strengthening security measures.
- Led workshops on Enterprise AWS technology, educating other interns and raising the overall team's expertise in cloud solutions and best practices.

Full Stack Engineer - Company Owner - LouGeo Ltd. *Jan. 2019*

- Developed full-stack solutions for local businesses, improving operational efficiency and promoting Liverpool's cultural heritage on a global scale.
- Created a stock management portal for Yiamas Greek Taverna using ReactJS and Firebase, significantly improving the restaurant's delivery organisation and kitchen productivity.
- Built a website for local music artist Music Of Babel, utilising ReactJS with an Express.js backend, enabling the artist to reach and serve over 50,000 listeners.

EDUCATION

University of Cambridge, United Kingdom *Sep. 2021 - Jun. 2022*

Advanced Computer Science, MPhil - 73% Average.

- Awarded **TPP Alan Turing Scholarship** from Kings College which granted £26,399 in funding towards research project.
- Completed Natural Language Processing research in editing large pre-trained language models for the task of fact-checking, improving model performance at implicit claim verification, as well as producing new techniques to generate explanations.

University of Liverpool, United Kingdom *Sep. 2018 - Jun. 2021*

Computer Science, BSc - First Class Honours: 84% Average

- **Andrew Young Prize, 2021:** Awarded for best overall performance in Final Year Honours examinations.
- **BCS Merseyside Prize, 2021:** Awarded for being the best overall student on a degree programme

PROJECTS

Algorithmic Visualiser *2024*

Available at <https://github.com/A-Georgiou/Algorithm-Visualiser>

- Developed a tool for students to visually understand and explore various Pathfinding, Searching, Sorting, and Graph algorithms.
- Supports multiple algorithms: Breadth First Search, Depth First Search, Dijkstra's Algorithm, Prim's Algorithm, Kruskal's Algorithm, Recursive Division, Bubble Sort, Insertion Sort, Quick Sort, Merge Sort, Linear Search, and Binary Search.
- Built with ReactJS, leveraging Zustand for state management, and deployed on GitHub Pages for easy access and distribution.

Reddit Analysis Project *2021*

Available at <https://reddit-political-analysis.netlify.app/>

- Developed a language model to classify political sentiment on Reddit communities, aiming to identify harmful echo chambers following the 2020 US election.
- Created the platform using React and Gatsby for static site generation, with model predictions served from a Flask backend using Gunicorn. Deployed on GCP with load-balancing and Docker for instance management.

COMPETITIONS

Village Data Quest - 1st Place *2020*

Data mining and Statistical Analysis Competition. Won the competition, receiving the Most Innovative Algorithm Award for having the most efficient solution to the 1000x1000 grid variation on the maximum sub-array sum problem, through an evolution of Kadane's algorithm which utilised dynamic array re-calculating and GPU optimisation.