ANDREW GEORGIOU

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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*

• Working with a dynamic team to process and monitor all traffic through Google, developing MapReduce feeds in C++ to produce a complex map of all internal traffic edges.

• Proposed and created a system to streamline feed creation that now processes ∼120B graph edges per day. Collaborated with cross-functional teams to build new pipeline that harmonises graph integration and feed ingestion. Successfully improving data freshness from 72 hours to less than 24 hours, winning a performance award for my work on the system.

• Devised and implemented a robust Queries-Per-Second (QPS) metric across all graph arcs, a pivotal metric now employed to evaluate graph coverage, notably contributing to the assessment for the Digital Markets Act (DMA).

• Created critical attribute aggregation pipeline for Google's storage systems, aligning with DMA requirements. Resultant dashboard became integral for debugging cross-product flow violations, prompting recruitment of senior engineers purely to work on project. This dashboard emerged as a core DMA compliance tool.

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

• Worked in Global Payments with the Faster Payments team, developing an analytical portal to help my team analyse when infrastructural upgrades are needed to handle increasing volumes of processing payments.

• Created React platform with Flask backend that enabled processing millions of volumetric payment data, graphing data and creating a seasonal prediction model for calculating future volumetric data.

• Enabled mutual authentication throughout their cloud infrastructure, creating Chef Cookbooks in Ruby to interact with Barclays CA to generate host certificates on EC2 instances. Led workshops teaching other interns Enterprise AWS technology.

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

• Full-stack developer for local businesses to help improve efficiency and globalising Liverpool's undiscovered culture.

• Created a stock management portal for Yiamas Greek Taverna with ReactJS integrated with Firebase. Enabling the restaurant to organise their deliveries, maximising their kitchen's productivity.

• Developed website for local music artist (Music Of Babel) using ReactJS with Express.js backend allowing him to serve his music to 50,000+ listeners.

EDUCATION

University of Cambridge, United Kingdom   *Sept. 2021 - June 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   *Sept. 2018 - June 2021*
Computer Science, BSc - First Class Honours: 84% Average

• Andrew Young Prize 2020-2021: Awarded for best overall performance in Final Year Honours examinations.

• BCS Merseyside Prize 2020-2021: Awarded for being the best overall student on a degree programme

PROJECTS

Reddit Analysis Project   *2021*
Available at https://reddit-political-analysis.netlify.app/

• Developed language model to classify political sentiment on Reddit communities, to identify harmful echo chambers following the 2020 US election.

• Created platform in React with Gatsby for static site generation. Model predictions served from a Flask back-end with GUnicorn hosted behind GCP load-balancer with instances spun up from Docker deployments.

Objective Restaurant Review Website   *2020*
Front End: ReactJS | Backend: Python (Flask) | Database: MongoDB | Hosting: GCP

• Fine-tuned pre-trained language model BERT on the sentiment analysis task of restaurant review score classification.

• Model trained in Google Colab on 1.5 million restaurant reviews and user ratings (1-5). (extracted from YELP dataset)

• Built a RESTful API, hosted on a Google Cloud instance to serve predicted review ratings, based on the user's review.

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.

Google Hashcode 2022 - Top 20 UK   *2020*
Competed in Google Hashcode, and finished in the top 20 in the UK Qualification Round and 600th worldwide out of over 10,000 competitors. Positioned in the top 10 in the world for the first hour of the competition with my quick to produce Python solutions.