George Soteriou

London · george@soteriou.me · +44 7380 502550 · georgesoteriou.com

Education

Imperial College London *MEng Computing Artificial Intelligence* London, UK
3rd Year Overall: First class (71.99%) 2017 - 2021
2nd Year Overall: Second class upper division (2:1) (69.74%)
1st Year Overall: Second class upper division (2:1) (60.02%)
Modules: Advanced Computer Architecture, Algorithms 1 & 2, Compilers, Computer Vision, Databases, Discrete Structures, Entrepreneurship, Hardware, Machine Learning, Model Based Artificial Intelligence, Logic, Logic-Based Learning, Mathematical Methods, Models of Computation, Network and Web Security, Operating Systems, Probability and Statistics, Project Management, Reasoning about Programs, Robotics, Software Engineering Design.

English School Nicosia *Secondary School* Nicosia, Cyprus
A-Levels: Maths, Computing, Further Maths, Physics and Greek with A* A* A A A 2010 - 2016

Work Experience

Google London, UK
Software Engineering Intern April 2020 - October 2020
Worked with Android Enterprise on a personal project to decrease the time it would take for an enterprise device to receive an application update, from the usual 48h window, to immediately after the update is published to the play store. I also helped with researching how this would be implemented and then writing the design doc for this project. During my time at Google I attended a lot of learning courses including ones about AI and Google's Knowledge Graph.

Cisco Systems London, UK
Platform Engineer, Technology Intern June 2019 - September 2019
Worked on a personal project to automatically provision Cisco specification kubernetes clusters within AWS and GCP as an alternative to the in-house clusters they use for the WebEx Teams platform. Used Terraform to create infrastructure and Ansible to provision the cluster. The cluster architecture involved bastion hosts and separate internal and external subnets. Pod routing was achieved using custom gateway nodes with code to register and keep track of a mapping from pod subnets to nodes, with Cilium networking. Also worked with *Go and Docker* to create a Mutating Admission Webhook for Kubernetes. Today a large part of the Webex Teams infrastructure runs on these clusters.

Goldman Sachs London, UK
Technology Intern April 2019 - June 2019
Shadowed full time engineers and learned a lot about how the company operates. After research, with a team of 4 we presented our work for ways they could improve the current platform used for Big Data Storage within Goldman. We were nominated for best team.

Cypriot National Guard Cyprus
Corporal, Compulsory Military Service July 2016 - September 2017
Trained in discipline and combat as artillery soldier. Then transferred to Network Manager position. Was responsible for my regiments network security services. Passed the Corporal exam and was given responsibility for 5 recruits.

Think Learning Centre (family business) Nicosia, Cyprus
Web Developer 2014 - 2016
Developed and maintained an online presence for the company. Setup local file-server and company specific Email accountsto increase collaboration.

Volunteer Experience

Imperial College London Department of Computing Society (DoCSoc) London, UK
Webmaster 2018 - 2020
For two years working as part of a committee responsible for 1300 students, forming one of Imperial College's largest and most active societies. My responsibilities included updating and maintaining docsoc.co.uk as well as helping the rest of the team running the society. We organized events Google DevFest 2018, ICHack 19 and ICHack 20 and more.
Portal Projects: During my tenure I created three new PWA/TWA portals:
Firebase, Vue, MLKit, Cloud Messaging and Kerberos for auth
- portal.docsoc.co.uk helps our sponsors find students interested in positions they offer.
- my.docsoc.co.uk facilitates the event ticketing system and realtime attendance tracking for society events.
- hub.ichack.org used during IC Hack to manage renting of hardware and providing useful information to hackers.

Imperial Google Hashcode Hub   London, UK
Organizer   2018 - 2020
Organized the Google Hashcode Hub for Imperial over 2 years with more than 200 people joining our hub.

Hack{Cyprus} Hackathon   Nicosia, Cyprus
Organizer   2013 - 2014
First ever hackathon in Cyprus. My responsibilities included finding sponsors before the event, organizing and judging teams on the day.

Hack{Cyprus} Code School   Nicosia, Cyprus
Organizer   2014 - 2015
Monthly sessions in which my responsibilities included teaching students the basics of programming through 'hour-of-code' and robot programming with blocks to complete challenges.

English School Nicosia Technology Society   Nicosia, Cyprus
President   2015 - 2016
Weekly sessions in which I would teach students about simple programming algorithms and how to make their own personal websites.

English School Nicosia Amateur Radio Society - 5B5ES   Nicosia, Cyprus
President (Licenced Amateur Radio user since 2013 – 5B4AJZ & M0GCQ)   2012 - 2016
Weekly sessions in which I would teach students about Amateur Radio and how it helped shape technology today while helping them prepare for the Amateur Radio license exam. In 2012 I won first in Europe in CQWW (the largest yearly competition).

PROJECTS

PINTOS Operating System
C, 80x86, Linux Kernel
As Project leader in a team of four, I worked on an 80x86 architecture operating system. We worked on the kernel threads to include priorities, safe concurrency using locking algorithms and priority donation when resources are locked. We also implemented dynamically loading and running multiple user programs concurrently, along with Virtual Memory management and concurrently safe memory eviction and swapping.

WACC Compiler
Kotlin, Java
Part of a team of four in which we created a compiler for a newly created language written in in Kotlin. We implemented Lexical Analysis, Syntax Analysis, Semantic Analysis and Code Optimization. We used techniques like peephole optimizations and Loop optimizations.

xDrone
NodeJS, Express, Python, Vue, Three.js
In a team of five we created a platform for teaching primary school students how to code with blocks in an exciting way, by introducing real life drones that can run the code in real time after it has been approved by the teacher. The server could run on a raspberry PI and would create a web interfaces for both students, in order to code, and teachers, to oversee submitted code. It would also convert the block code submitted into a Domain Specific Language that was created for the drones and finally execute the calls to make the drone fly. We also implemented a 3d emulator in Three.js so that the students could see what the code they wrote would do before sending it to the drone. We then added stories with objectives to make learning more fun. Finally we automated marking of task completion or warnings if the drone would fly too far away, using predictive flying calculations. We then took this to a school to try it out in London and we had a lot of great comments from students and teachers alike.

Prolog logic model based problem solving
Prolog
Created a logical model world that could solve any general problem (within the model domain) given a specific starting point and a knowledge base if there is a solution.

Robot car SLAM
Python
Programmed a robot using Simultaneous Localisation and Mapping to help it reach targets in an unknown room while mapping the area it is in only using one radar sensor in the fastest possible time.

Other GitHub sideprojects
github.com/georgesoteriou
Simulation of genetic evolution in web animations ● neural network classifier on the web ● picture to music converter in C that will run native on raspberry PI ● virtual drum set using Myo motion tracking device ● and more.