GEORGE SOTERIOU

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EDUCATION

Imperial College London MEng Computing Artificial Intelligence

London, UK 2017 - 2021

3rd Year Overall: First class (71.99%)

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

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. The project is now launched to customers and is available for millions of users. 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 accounts to 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

Organizer

London, UK 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

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.

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.

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.

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.

Other GitHub sideprojects

github.com/georgesoteriou

Simulation of genetic evolution in web canvas \bullet neural network classifier using brain.js \bullet picture to music converter in C \bullet virtual drum set using Myo motion tracking device.