# GEORGE SOTERIOU

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#### EDUCATION

## Imperial College London

London, UK 2017 - 2021

MEng Computing Artificial Intelligence

First Year Overall: Second class upper division (2:1)

First Year Programming: 81 % (C, C++, Java, Haskell)

## English School Nicosia

Nicosia, Cyprus

Secondary School

2010 - 2016

A-Levels: Maths, Computing, Further Maths, Physics and Greek with A\* A\* A A

#### WORK EXPERIENCE

## Cypriot National Guard

Cyprus

Corporal

2016 - 2017

For my army service, I worked here for 14 months. Starting my training as an artillery soldier, my experience in Computing was quickly realized and I was moved to the central artillery command centre to work as the Network Manager. I was responsible to maintain a secure connection to a local server and make sure no unauthorized data left the network. I also passed the Corporal exam, so I was responsible for 5 recruits (training, well-being, etc)

## Think Learning Centre

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 - 2019

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 and portal.docsoc.co.uk as well as helping the rest of the team running the society.

As part of DoCSoc I have helped organize Google DevFest 2018, ICHack 19 and Google Hashcode 2019.

## Cypriot Enterprise Link

Nicosia, Cyprus

#### Hack{Cyprus}, the largest and first Hackathon in Cyprus.

2013 - 2014

My responsibilities included finding sponsors before the event and judging teams for prizes on the day.

#### Hack{Cyprus} Code School, events for younger children to learn coding.

2014 - 2015

My responsibilities included teaching younger 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

During weekly sessions, I would teach students about simple programming algorithms and how to make their own website with simple HTML and CSS. My initiative in creating this Society created a new community in our school that has now grown to over 100 people and the society is still running today after 3 years by students I taught.

## English School Nicosia Amateur Radio Society

Nicosia, Cyprus

President

2012 - 2016

During weekly sessions, I would teach younger students about Amateur Radio and how it helped shape technology today. I would also help students prepare for the Amateur Radio license exam. During weekends I would organize and take part in 24-48 hour global Amateur Radio competitions.

In 2012 I won first in Europe in CQWW (the largest yearly competition).

#### **DoCSoc Sponsor Portal**

github.com/docsocsf/sponsor-portal

NodeJS, Express, Python, MongoDB, HTML, PUG, Docker, CircleCi, Kerberos, AWS (EC2, S3)

Project leader and full stack developer of an online portal for both members and sponsors of DoCSoc. I implemented all the following. Fully automated and tested pipeline for deployment. Authentication using kerberos and mongoDB for cashing. Database that stores all the sponsors' information and all interactions between them and the members. Use of AWS s3 that stores all the documents users upload. Nodejs/Express server that handles REST requests.

#### Pint-OS

C, 80x86, Operating Systems

I was project leader in a team of 4. I worked on an 80x86 architecture operating system. I upgrade the kernel threads to include priorities, safe concurrency using locking algorithms and priority donation when resources are locked. I also implemented dynamically loading and running multiple user programs concurrently, along with Virtual Memory management and concurrently safe memory eviction and swapping.

# ARM-11

github.com/georgesoteriou/arm Project C

C, Raspberry PI

Worked in a team of 4 to create a compiler for ARM assembly files into object code, and then also created a program to simulate the execution of the object code. This would all run on a Raspberry PI.

#### PI DJ

Javascript, C, Raspberry PI

Worked in a team of 4 to create an online template creator and a C program that translates the templated picture into a musical melody on a Raspberry PI.

## Some of my GitHub side-projects

• Myo DJ

georgesoteriou/Myo-Dj-Script

Javascript, Myo API

In a hackathon, I used a Myo Device to capture the motion of the wearer's hand and dynamically create music according to the movements they make. The project is able to record a movement pattern and repeat that while the user can layer new movement-music above it.

- ullet Sketch animating genetic algorithm and evolution georgesoteriou.com/rockets-genetic-algorithm  $Javascript,\ p5.js$ 
  - Dynamically created animation to simulate genetic evolution of nodes trying to reach a target. The best nodes are inspected at the end of a generation. Using a gene pool and random selection, a new generation is created by combining 2 "parent" nodes per new node. According to the random start seed 100% of the population will reach the target in between 7 and 70 generations. Also worked on displaying statistics of this animation by analyzing all possible seeds.
- Web app to classify pictures using Brain.js Neural Network georgesoteriou/NN-Draw-Classifier Javascript, brain, js

A blank canvas to draw on and using a click of a button the "AI" will associate the pattern drawn to the button label clicked. It can then be used to reverse predict a new sketch it has never seen before and classifies it as one of the labels.