Hayk Khachatryan

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UCL Theoretical Physics graduate (First Class Honors); Self taught intermediate programmer (Python, Mathematica); Freelance Web Developer

EDUCATION

Theoretical Physics at University College London

2016-09 - 2019-06

Achieved a degree with First Class Honors

- Practical Mathematics and Computing I & II (Python and Mathematica): 84% & 86%
- Mathematical Methods II & III: 91% & 91%
- Climate & Energy: 83%
- · Representative for 30 Physics students

EMPLOYMENT

Software Engineering Intern at Unicomp

2018-07 - 2018-09

Designed and developed a quantum computer simulator in C++. Lectured on quantum computation.

C++ - Quantum Computing - Communication - Problem solving

Freelance Web Development

2015-01 - 2018-04

Developed full stack, responsive websites for my clients.

- JekyllNow, Wordpress
- · Bootstrap, Polymer
- LAMP stacks

HTML 5 - CSS3 / SASS - Flexbox - Handlebars - JS - PHP - Node.js - gulp.js - Flask

Sales Account Manager at OptionRally in Limassol, Cyprus

2016-03 - 2016-05

Addressed clients' issues with their finances and resolved their concerns with investments. Improved my communication skills through the high pressure environment of finance sales.

CRM - Windows - VOIP - Communication

Independent Social Media Consultant

2015-02 - 2015-08

Launched social media presences and designed advertising campaigns that increased my clients' following by over 60%.

Facebook - Instagram

IT Assistant at ZIGZAG in Yerevan, Armenia

2013-07

Diagnosed and troubleshooted networking and technical issues at the IT department of an office of 50 employees.

Problem solving - Logical thinking

Intern Mechanic at Vitesse in Yerevan, Armenia

2011-07

Repaired and serviced ATVs, jetskis, and snowmobiles at the mechanical department of the BRP Service Center.

Problem solving

PROJECTS

Molecular Dynamics Researcher at Can Hot Water Freeze Faster Than Cold Water?

2019-01 - 2019-03

A university research project tasked with investigating the effects of impurities and differing starting temperatures on the freezing of water.

- Designed multiple molecular dynamics simulations in LAMMPS investigating the effects of impurities on the freezing of water.
- Analyzed the data, comparing to data gathered by the experimental team.
- Visualized our results using VMD and Jupyter.
- Assembled our research in LaTeX.
- Transcribed minutes for some meetings.
- · Chaired some meetings.

MD simulations - LAMMPS - VMD - LaTeX - Communication - Leadership - Python - Jupyter

Systems Engineer and Liaison Officer at Intergrated Engineering Challenge #2: Global Health

2015-11 — 2015-12

A university project where a a multi-disciplinary team of specialist engineers formulate, design and verify an effective strategy for the production and distribution (and monitoring) of a vaccine to combat a Tuberculosis Pandemic in Sub Saharan Africa.

- Designed and developed a control system for the temperature, pH, and stirring of a bio-reactor.
- Developed in C and Processing on a Launchpad microprocessor.
- Liaised with engineers from other disciplines on specifications and requirements.

C - Processing - Communication - Leadership

SPEAKING

Delegate of Iran at Mediterranean Model United Nations in Nicosia, Cyprus

2015-02

A simulation of the United Nations, done by students from various schools as they discuss and try to find solutions to current world problems.

- · Debated and discussed issues in a formal UN-like setting.
- · Created resolutions to be debated.

Communication - Debating - Public speaking - Research

Member of Medical Ethics committee at Youth Voice in Nicosia, Cyprus

2014-04

An annual weekend conference where young people between the ages of 15-19 from schools convene to discuss and express themselves on current affairs.

• Debated and discussed various ethical issues in the medical field.

Communication - Debating - Public speaking - Research

Speaker at Science Rocks in Limassol, Cyprus

2013-03

'Does anything touch?'

• Gave a speech on how no particles ever really touch as a consequence of the electromagnetic force.

Communication - Debating - Public speaking

SERVICE

Technical Consultant at Limassol Phoenician Leo's Charity Club

2014-09 - 2015-07

Helped raise €5365 over two charity events (October - December 2014)

- · Social media management
- · Graphic design

Facebook - Photoshop - Delegation - Communication

SKILLS

Web (intermediate) HTML 5 CSS 3 / SASS Polymer Google Analytics

Programming (intermediate) Python Mathematica Git

Programming (beginner) C++ Java C Haskell Javascript

Cloud (intermediate) DigitalOcean

Software (advanced) Photoshop Lightroom Final Cut Pro spreadsheets

Languages (native) English Armenian