Ethan Campbell

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Portfolio

Link: https://github.com/goatm0n/goatm0n.github.io

Personal statement

Currently seeking a new position as a Junior Software Engineer.
My studies in Maths, Physics, Astronomy and Computer Science have allowed me to independently develop a multitude of complex software applications. My independent learning, demonstrated by my portfolio, shows that I can quickly adapt to and become proficient in any language or framework.

Key Skills

- Python: pandas, numpy, Django, tensorFlow, keras, scipy, matplotlib
- Rust: WebGPU
- C++: JUCE, imgui,
- SQL: postgres, mysql,
- Javascript: React, Vue, responsive SPA
- Developed a social media webapp using Django framework as a REST-api to connect to a postgresql database and serve the content to the user on the frontend via a react / vue responsive spa
- Spotbook: a social media webapp I created using django-rest-framework connected to a postgresql server for the backend and react framework for a responsive front end
- Rsa-rs: a rust rsa encryption package for the purpose of 1024 bit rsa keygen and encryption / decryption, published on crates.io
- Qwantum: a 1d time independent schrodinger equation solver written in python
- Graphics programming: OpenGL, WebGPU, WebGL,
- Webscraping: Selenium, BeautifulSoup,
- Linux
- Communication

Projects

Spotbook
This project displays positioning of user uploaded "spots" on an interactive map using spatial data. Posts can then be uploaded by users to "spots" where they can be viewed by other users. Users are served a content feed containing posts uploaded to "spots" they follow. Originally hosted on a home server I am in the process of migrating this to AWS to gain valuable cloud/devops knowledge.
Technologies: Python, Django, AWS, JavaScript, React, PostgreSQL
GitHub: https://github.com/goatm0n/spotbook

RSA project
An implementation of the RSA cryptography algorithm in rust. I have published a library on crates.io containing code necessary for the generation of RSA keypairs and the encryption/decryption of strings. I have then used it to develop an RSA CLI application for the purpose of encrypting and decrypting files.
GitHub: https://github.com/goatm0n/rsa_rs   https://github.com/goatm0n/rsa_cl
Crates.io: https://crates.io/crates/rsa_rs   https://crates.io/crates/rsa_utils

Employment History

Wineflair, Belfast: Shop staff. *Nov 2021- Jan 2022*

My role in this busy city centre shop included managing stock/inventory as well as handling cash and card transactions.

The Stokers Halt Bar and Restaurant, Belfast: Bartender and waiter. *June 2019 – Aug 2019*

My role in this busy bar and restaurant included all aspects of table service as well as handling cash and card transactions.

Cyprus Avenue Restaurant, Belfast: Kitchen porter. *Dec 2018 – Mar 2019*

My role in this restaurant included washing dishes, preparing vegetables and assorted tasks to ensure the smooth running of the kitchen.

Education

University of Glasgow *(September 2018 – December 2020*
Physics with Astrophysics
Passed and completed 1st year – deferred during COVID.

A Levels	GCSE
Maths A*	Maths A*, Engineering A*, Further Maths A*, Physics A*, Chemistry A*,
Physics A	Religious Studies, A*, Biology A, English Language A, English Literature B,
Further Maths A	French B, Learning for Life and Work B

Hobbies & Interests

A large interest for the past 13 years has been skateboarding. I have been able to combine this interest with community work to build a skatepark in the local park. This has helped me develop an ability to work with others as well as utilising my analytic and problem-solving skills. My interest in skateboarding has also led to opportunities to feature in published works like The Skateboarders' Companion, which has further developed my understanding of commercial marketing.
   -Music
   -Software/astrophysics

References

References are available upon request.