

Marios Simou

Flat 3, 2/4 Market Place, Basingstoke, RG217QA, Hampshire/ 075 46 78 10 40

marios.simouu@gmail.com / <https://github.com/MarioSimou> / <https://mariosimou.github.io/>

Work experience

May 2019 - Today

Qmee | Software Engineer | United Kingdom

- Implemented API services using **REST** and **GraphQL** design patterns. **Ruby on Rails** is used as the core framework to support the back-end logic, which follows the principles of an **MVC** architecture. Supported each service using a **Postgresql** and **Redis** data storage. Added each component in a microservice architecture, which then deployed in **Heroku** host platform. Dockerised a service in its own independent environment, allowing the communication between each service.
- Added new features in a **React**-based web-application.

Sep 2018 - May 2019

MasterControl | Technical Specialist | United Kingdom

- Designed and developed web forms using **JavaScript**, **HTML**, **CSS** and **jQuery**.
- Wrote **T-SQL** scripts that ran on a **Microsoft SQL Server**.

Jul 2011 - Jul 2013

Cyprus National Guard – Military Service

- Maintained the balance for a platoon of 20 people. Implemented on a daily basis a timetable that gathered the main responsibilities of a soldier, including patrolling, cleanings and others.
- Gained several skills like rapid adaptation in new environments and situations, as well as communication, leadership and management skills.

Education

Sep 2017 – Sep 2018

University College London | London | United Kingdom

MSc Spatio-temporal Analytics and Big Data Mining (Distinction)

- **Recognition:** Awarded with the **Hotine Prize** as the student with the highest performance among his cohort.
- **Thesis:** Dashboard Development using Data of London Bicycle Sharing System – Focused in the development of a web-based dashboard that comprehend analytical results in space. Various visualisations are employed to enhance the user experience (<https://github.com/MarioSimou/tproject>).
- **Relevant modules:** Programming, Spatio-Temporal Data Analysis and Data Mining (STDM), GIS Principles and Technology, Information Retrieval and Data Mining, Complex Networks and Web, Principles of Spatial Analysis, Spatial Databases and Data Management, Web and Mobile GIS – Apps and Programming
- Developed a location-based smartphone/tablet app using **VanillaJS**, **HTML**, **CSS** for the front-end, and **NodeJS** and **PostgreSQL** for the back-end (<https://github.com/MarioSimou/UCL-Quiz-app> / <https://github.com/MarioSimou/UCL-Question-System-app>).
- Implemented the conceptual, logical and physical design of an Olympics Games database. Wrote **DDL** and **DML** statements to initialise and populate the database Automated tasks writing **PL/pgSQL** triggers and enhanced the

performance using indexes.

- Analysed if the topological properties of a rewired spatial network matched with the properties of power-law and small-world that recognized in **social networks**. Generated a **Python** script that rewired a spatial network in a dual graph
- Performed **natural language processing** (NLP) and **classification techniques** that evaluate the accuracy between various information retrieval models (https://github.com/MarioSimou/Information_Retrieval_IR).
- Applied Space-Time Modelling and Machine Learning methodologies on a burglary crime dataset. Predicted and analysed the performance between a **Space-Time Autoregressive Integrated Moving Average (STARIMA)** and **Multilayer Perceptron Regression Neural Network**. Determined clusters of crime using **Machine Learning** techniques.

Sep 2013 - June 2017

Cyprus University of Technology | Limassol | Cyprus

Bachelor of Surveying Engineering and Geoinformatics (Final Grade: 8.267/10)

- **Recognition:** Ranked 1st among his class, offering a scholarship.
- **Thesis:** Geostatistical Methods for correcting Digital Elevation Models, based on higher accuracy raw data.

Sep 2008 - Jun 2011

Foti Pitta Lyceum | Frenaros | Cyprus

- **Overall Grade:** 19.360 / 20 (Physics, Mathematics, Chemistry, Biology)

Additional experience

Jan 2018 - Today

Basingstoke | United Kingdom

- Designed and implemented his own [portfolio](https://mariosimou.github.io/) with **React** (<https://mariosimou.github.io/>).
- Developed [Core Data Science \(CDS\)](https://coredatascience.herokuapp.com/), an online publishing platform that aims to inspire users to write and publish their own data science-related topics. Completed a server-side rendered, **monolithic application**, which uses in the front-end **JavaScript**, **EJS**, and **CSS** and for the back-end **NodeJS** and **MongoDB** (<https://coredatascience.herokuapp.com/>).
- Experimented with **NodeJS**, **vanillaJS**, **React**, **Redux**, **Redis**, **Rabbitmq** and **GraphQL** in diverse personal projects.
- Completed courses with various web-technologies, receiving certificates that are available in <https://www.linkedin.com/in/marios-simou/>.

Other Skills

- **Linux / Bash Scripting**
- **Data Analysis** (Python, R)
- **GIS** (Desktop and ArcGIS Online – QGIS)
- **Languages** (**Greek** (native), **English** (IELTS – 7))