

# Michael Gauci

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## EDUCATION

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### Master of Science in Metamaterials

Oct 2018 – Mar 2022

*University of Malta*

- Received a Pass with Distinction
- Participated in a training program on the application of ML to gravitational wave research using PyTorch
- Converted study objectives into executable code for implementation within the LAMMPS simulation environment
- Developed a Python-based data processing pipeline to analyse tensile data generated from MD simulations
- Awarded the Masters Distinction Award in recognition of outstanding performance during the M.Sc. studies

### Bachelor of Science (Honours) in Chemistry

Oct 2015 – Dec 2018

*University of Malta*

- Completed with a Second Class Honours (Upper Division)
- Presented joint research at the 2018 Malta National Chemistry Symposium on the influence of vehicular traffic patterns on particulate matter pollution levels
- Earned a Certificate of Merit for the final year project *On Folded Graphene and its Properties: A Preliminary Study*

## EXPERIENCE

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### Quant Researcher

Apr 2022 – Current

*Self-employed*

*Europe*

- Leveraged data-driven insights to identify trading strategies for investment opportunities in the US equity market
- Currently editing *A Hitchhiker's Guide to Quantitative Finance*, a book which focuses on the interdisciplinary nature of quantitative finance, bridging the fields of mathematics, statistics, finance, and computer science

### Founder

Oct 2018 – Dec 2019

*Port Mobility*

*Malta*

- Coordinated with a team of IT specialists to develop the service architecture for a micro-mobility sharing platform
- Led a comprehensive procurement exercise for the provisioning of scooter hardware, which included a trip to China for face-to-face meetings with suppliers
- Pitched at the 7<sup>th</sup> edition of ICTSA's The Million Dollar Idea, finishing in 2<sup>nd</sup> place

## CERTIFICATION

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### AWS Certified SysOps Administrator - Associate

Jan 2022

*Amazon Web Services*

- Validates technical expertise in deploying and managing secure, highly available AWS workloads, skills directly transferable to core Microsoft Azure services

### AWS Certified Developer - Associate

Dec 2021

*Amazon Web Services*

- Demonstrates proficiency in creating CI/CD pipelines for automation, and interacting with cloud-native services via SDKs and APIs

### AWS Certified Solutions Architect - Associate

Nov 2021

*Amazon Web Services*

- Certifies expertise in architecting scalable and secure cloud data solutions, directly aligning with data warehouse design and the implementation of ETL pipelines with SSIS/Python and SQL Server

## PROJECTS

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**Dotman:** Bash dotfile management and automation system for desktop Linux

**Replotter:** Python GUI application to extract data points from graphical images, also available as a VBA macro

**Literature Toolkit:** Jupyter notebook for exploratory analysis of a literature corpus using ML and scikit-learn

**Personal Website:** Designed in Figma, built with Astro, TailwindCSS, and GSAP, and hosted on GitHub Pages