

Enrico Zammit Lonardelli

Theoretical Physicist and Software Developer

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Professional Summary

- I am a physics graduate with a strong DevOps mindset interested in full-stack software development
- Hard working spirit and eagerness to learn shown by the 10+ hackathons I have attended across 5 countries
- Starting on a technology graduate program at HSBC Bank plc in London in September, 2020

Technical Skills

5+ years experience: Git, Python, C++, Node.js, React.js

2 years experience: Java, PHP, Amazon AWS, Linux

1 year experience: Docker, Tensorflow + Keras Machine Learning

Relevant Experience

Superhero Science Competition

Pro-bono in collaboration with NGO Euromedia Forum

Sep. 18- Current

- An initiative to design an online superhero themed science competition for children and students ranging from 9 to 14 years old. This would be open nationwide (Malta) for the duration of 5 months every school year.
- Single-handedly designed and maintain a serverless lambda API with Node.js on AWS services with a self-scalable client service on React.js. Developed using CI/CD pipelines with Docker and Cloudformation.
- Technologies used: Gitlab, AWS Lambda, API Gateway, CloudFormation, React.js, Material UI, DynamoDB, AWS IAM, AWS Cognito, Netlify

Intern Developer

Novacoast, Manchester, UK

Jan. 20 - Sept. 20

- Collaborated in a team of 4-5 developers led by a senior software developer.
- Worked on front-end in React.js and Material UI and also resolved issues where required in the backend in Go or the worker in Python3. A great learning experience since I had never worked with Go or used testing suites such as Jest.
- Improved my team working skills and flexibility since the company is based mostly in the US so working at strange times of the day was sometimes needed.
- Drastically elevated my abilities by working on constant constructive feedback, specifically towards developing production-ready, stable packages which are also security focused first.
- Technologies used: Gitlab Enterprise, React.js, Material UI, Go, Python3, Docker, Jest, Enzyme

Education

MPhys Physics with Theoretical Physics (Hons.)

The University of Manchester, UK

Sept. 16 - Jun 20

- Final total grade: Upper Second Class (Mphys final year project 78%)
- My final year project was using deep learning techniques to create fast simulations alternative to Monte Carlo techniques. Produced very promising results and ended up presenting to numerous scientific groups. [Github repository](#)
- Technologies used: Python3, Docker, Singularity, GANs, Tensorflow, Keras

Other Notable Experience

Dark Matter Research Intern

Rutherford Appleton Laboratory, Harwell, UK

Jul. 19 - Aug. 19

- Supervised by Dr.Pawel Majewski, I carried out data analysis on noisy simulation data
- Produced an all-round simulator for a detector specifically aimed at detecting the Migdal effect, a cutting-edge technique for dark matter detection
- As a personal extension I generated a machine learning model to classify signal images with 83% accuracy
- Technologies used: Git, Python, C++ , Fortran, Keras ML, Degrad, Magboltz, SRIM, Geant4

iGaming Frontend Developer

Raketech, Malta

Jun. 18 - Sept. 18

- Maintained 4 high revenue VIP websites and coordinated with a team of SEO managers and content writers
- Gained experience in working with Agile methodologies and a deadline-driven environment
- Achieved a complete face lift of a particular high revenue website during my short stay
- Technologies used: Git, PHP, Wordpress, Docker, Jira, Bitbucket, Confluence

Research Intern

University of Malta, Malta

Jun. 17 - Sept. 17

- Supervised by Dr.Pierre-Sandre Farrugia, I modelled auxetic materials using ANSYS 13.0 to study the design of different materials, particularly starting from a shape and modelling it so as for it to become auxetic in nature.
- Gained invaluable experience in research procedures, 3D modelling, auxetics and outside-the-box thinking.
- Published in a peer-reviewed journal as coauthor and most recently received an award by Wiley publishers for being one of the most read papers in 2018-2019.

Technical Service Representative

Hornet Services, University of Manchester, UK

Sept. 16 - Jun. 17

- Responsible for technical assistance with any network IT related issues around university campuses
- Gained experience in IT technical services, teamwork skills and customer relations

Languages

Native: Maltese, Italian, English

Proficient: French

Learning: Russian

May 26, 2020