

# Ryan Agius

Embedded Engineer



## About me

I am an electronics & embedded engineer with 3 years of experience working with on a variety of related projects, from small prototypes to larger commercial products.

I enjoy solving problems and learning new skills, especially those related to embedded systems.

I currently specialise in Embedded Linux Systems for vision and AI applications for educational, industrial and commercial use. On these systems, I have been responsible for creating elements of their BSP, writing and testing kernel drivers, diagnosing hardware, firmware and software issues and packaging and optimising applications for said systems.

## Contact

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- 👤 ryan-agius

## Languages

- 🇬🇧 English - Native Language
- 🇲🇹 Malti - Native Knowledge
- 🇫🇷 Français - Basic Knowledge

## 💼 WORK EXPERIENCE

SEP 2021 - Today	<b>AIoT Engineering Manager</b> <i>SmartCow</i>	📍 St. Julians, Malta
	Lead a small team of Embedded Linux and IoT Engineers to quickly develop and test hardware, firmware & software features related to SmartCow's products. Interact and consult various other teams based on our findings to improve product viability. Create training documents and courses for both internal and external use. Represent the company at various exhibitions and expos in Europe and the Middle East, as well as help produce presentations, blog posts and product videos for marketing purposes and sales pitches.	
JUN 2021 - SEP 2021	<b>AIoT Engineer</b> <i>SmartCow</i>	📍 St. Julians, Malta
	Responsible for rapid prototyping and day-zero testing of hardware prototypes and software features around the NVIIDA Jetson platform.	
MAR 2020 - JUN 2021	<b>Student Engineer</b> <i>Methode Electronucs Malta Ltd.</i>	📍 L-Imrieħel, Malta
	Helped improve the functionality of verios systems and processes in the SMT department, which focuses on automotive PCB assembly. Projects included a backup system for a number of critical Unix, Windows and Linux systems, and optimisation of a laser system for barcode etching on assembled PCBs.	
AUG 2020 - FEB 2021	<b>Research Student</b> <i>CERN</i>	📍 Geneva, Switzerland
	Worked with the European Organization for Nuclear Research's (CERN) Mechatronics & Robotics department as part of my Master's Degree. The main project was to implement a vision based anomaly detection system to scan the interior surface of superconducting RF cavities. Duties included sourcing components, PCB design to provide custom functionality and implementing signal processing and machine learning algorithms to identify anomalous areas in the images taken.	
AUG 2020 - FEB 2021	<b>Research Student</b> <i>Bern University of Applied Sciences</i>	📍 Burgdorf, Switzerland
	Responsible for the creation of improved prototypes of two low-cost, low-power IoT systems with Bluetooth connectivity. Duties include performing simulations and cost studies of the proposed circuits, designing and assembling PCBs and performing a full characterisation on the completed systems.	

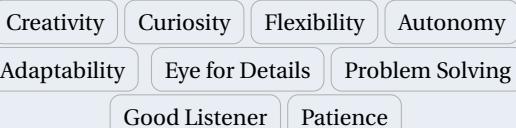
## 🎓 EDUCATION

2019-2021	<b>Master of Science in ICT</b> <i>University of Malta</i>	📍 L-Imsida, Malta
	Followed the Master of Science in ICT: Signal Processing and Machine Learning course consisting of one year taught studies and a one year dissertation. Classes followed mainly focused on machine vision, signal processing, IOT devices and machine learning algorithms.	
	<b>Dissertation:</b> Dissertation entitled, Manufacturing Process Anomaly Detection in RF Cavities.	
	<b>Degree:</b> summa cum laude	
2015-2019	<b>Bachelor of Engineering (Hons).</b> <i>University of Malta</i>	📍 L-Imsida, Malta
	Followed the Bachelor of Engineering (Hons.) in Electrical & Electronic Engineering course where I focused mainly on Radio Frequency Engineering, Digital Signal Processing, Analogue & Digital Electronics and Power Electronics.	
	<b>Dissertation:</b> Design of the Radio Front-End of a UHF Phased Array System.	
	<b>Degree:</b> summa cum laude	

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Skills and Strengths

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Other Interests

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- Cycling 🚴
- DIY 🛠
- Kayaking 🛶
- Chess ♟
- Reading 📖
- Travels 🌎

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Download My CV

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Download my CV via the QR below ↗.



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INFORMATION TECHNOLOGY SKILLS

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<b>Embedded Systems</b>	<b>Embedded Linux:</b> Advanced <b>Yocto:</b> Intermediate <b>Buildroot:</b> Intermediate
<b>Modeling and Simulation</b>	<b>Altium :</b> Advanced <b>QUCS :</b> Advanced <b>LTSpice:</b> Intermediate
<b>Version Control</b>	<b>git, github :</b> Intermediate <b>SVN :</b> Basic
<b>Devops</b>	<b>GitHub Actions :</b> Intermediate <b>Docker :</b> Intermediate <b>Ansible :</b> Basic
<b>Office Automation</b>	<b>MS Office Suite (Excel, Word, PowerPoint):</b> Advanced <b>LaTeX:</b> Advanced

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PROGRAMMING LANGUAGES

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- **C:** Advanced
- **C++:** Basic
- **Python:** Advanced
- **Rust:** Basic
- **sh, bash:** Advanced

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CERTIFICATES

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- Fundamentals of Accelerated Data Science (*NVIDIA DLI, 2021*)
- Fundamentals of Accelerated Computing with CUDA Python (*NVIDIA DLI, 2021*)
- Fundamentals of Accelerated Data Science with RAPIDS (*NVIDIA DLI, 2021*)
- Modeling Time Series Data with Recurrent Neural Networks in Keras (*NVIDIA DLI, 2021*)
- Getting Started with AI on Jetson Nano (*NVIDIA DLI, 2021*)
- Building Video AI Applications at the Edge on Jetson Nano (*NVIDIA DLI, 2021*)
- Getting Started with DeepStream for Video Analytics on Jetson Nano (*NVIDIA DLI, 2021*)