

# William Hicklin

EMBEDDED ENGINEER · SYSTEMS DEVELOPER · RESEARCHER

🏠 9th March 1989 📞 (+44) 07542314934 ✉ resume@hicklin.mt 📱 hicklin 🌐 William Hicklin

## Professional Summary

Results-driven embedded systems engineer with 7+ years of experience developing secure, reliable software for connected devices. Proficient in C++ and embedded Linux with growing expertise in Rust, delivering high-quality embedded solutions through cross-functional collaboration and technical leadership. Passionate about advancing memory-safe programming practices in embedded systems through Rust adoption and open-source contributions.

## Experience

### Lead Embedded Engineer

Bristol, UK

DYSON

Apr 2024 - Present

Leading embedded software development for connected devices, focusing on Matter protocol implementation and Rust adoption.

- **Matter Protocol Development:** Delivered the Service Area Cluster for Matter 1.4 specification and SDK, meeting all deadlines while producing comprehensive specifications, test plans, and implementation code.
- **Process Improvement:** Provided comprehensive feedback on the Matter development workflow, identifying pain points and proposing actionable solutions to technical leadership.
- **Open-Source Initiative:** Secured official approval for open-source software contributions and established new internal workflows, creating practical guides for engineers to contribute to open-source projects.
- **Rust Adoption Strategy:** Initiated efforts to promote Rust across the organisation, developed core libraries, created proof-of-concept examples, and contributed to open-source embedded Rust projects including `embassy-rs/trouble` and `rust-embedded/heapless`.

### Senior Embedded Software Engineer

Bristol, UK

DYSON

Feb 2020 - Apr 2024

Worked on a rapid prototyping team, delivering innovative prototypes and building platforms to accelerate development.

- Led Matter standard implementation efforts, collaborating with engineers across organisations to define specifications and implement new clusters for various device types.
- Designed and implemented embedded hardware and software solutions, including PCBs, back-end software, and embedded UIs.
- Built and maintained a custom OS using Yocto framework, creating tools for internal and external teams.
- Mentored junior team members and led technical aspects of various projects.
- Developed containerised applications and drivers for rapid prototyping platform.

### Systems Developer

Tewkesbury, UK

AIR MONITORS LIMITED

Feb 2018 - Jan 2020

Led the development of an industrial embedded Linux data-logger for collecting data from air quality instruments.

- Designed and built hardware, developed testing applications, and implemented core software in C++.
- Created a custom OS with cross-compilers and an update server, established cloud infrastructure, and developed a web interface.
- Introduced and managed DevOps pipelines with comprehensive feature unit tests.
- Contributed to the Breathe London project with Google and Imperial College London, responsible for logging air quality and position data from mobile monitoring units.

### Research Support Officer

Msida, Malta

UNIVERSITY OF MALTA

Jan 2015 - Feb 2018

Managed a Mobile Air Quality Lab, building systems to manage instruments and data while conducting research campaigns.

- Built online systems to manage instruments and their data using Python and Django.
- Created standard operating procedures for laboratory equipment.
- Performed equipment maintenance and repair.
- Designed and conducted measurement campaigns for air quality research.

### Systems Developer (Contract)

Msida, Malta

UNIVERSITY OF MALTA

May 2014 - Nov 2015

Developed an energy-efficient data logger for a seismometer for an international ocean-bottom station project.

- Designed and implemented an embedded system for seismic data collection.
- Collaborated with international team of engineers in Palermo to integrate with the primary system.

- Optimised power consumption for long-term underwater deployment.

## Skills

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Spoken Languages	English, Maltese
Languages	C++, Go, Rust, Python
Systems	Embedded Linux, Matter, Balena, Embedded Rust, Yocto
Tools	Altium Designer, PlantUML

## Professional Development

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Comprehensive Rust Training	
FERROUS SYSTEMS	Jan 2024
Advanced C Programming	AC-401
FEABHAS	Feb 2022
Developing Embedded Systems with Yocto	
DOULOS	Feb 2019

## Education

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University of Malta	Msida, Malta
M.SC. IN PHYSICS (RESEARCH)	2012 - 2014
<ul style="list-style-type: none"><li>• Grade: Distinction</li><li>• Dissertation: "Investigations of VOCs in buildings close to service stations"</li></ul>	
University of Malta	Msida, Malta
B.SC. (HONOURS) IN CHEMISTRY AND PHYSICS	2008 - 2012
<ul style="list-style-type: none"><li>• Grade: Merit (Second Upper)</li><li>• Dissertation: "Construction and Characterisation of Dye-Sensitised Solar Cells: using natural dyes"</li></ul>	

## Professional Strengths

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- Technical leadership and mentorship
- Cross-functional collaboration
- Detailed code review and documentation
- Problem-solving and innovation
- Continuous improvement mindset
- Open-source contribution and advocacy
- Strong analytical thinking and attention to detail