

# Ryan Suchocki — Curriculum Vitæ

www.suchocki.co.uk — ryan@suchocki.co.uk

**Embedded Software Engineer specialising in writing and optimising high-performance, low-level software to the highest standards of maintainability and robustness.**

## Experience

Dec' 2020 – present	<b>Principal Engineer (Embedded Software) — Cambridge Consultants Ltd</b> During my time as Principal Engineer I have focussed on MAC and PHY layer software for communications stacks including 5G NR, Bluetooth and proprietary systems based on LTE and WiFi. I have been responsible for re-architecting stacks to support multiple regulatory regions, integrating DSP accelerator blocks, and implementing novel features including baseband interference classification and transparent handover between stations.
June 2018 – Dec' 2020	<b>Senior Engineer (Embedded Software) — Cambridge Consultants Ltd</b> I was promoted to the role of Senior Engineer after eight months at Cambridge Consultants. During this time I was technical and team lead on an ambitious automation project for on-target testing of satellite transceivers.
Oct' 2017 – June 2018	<b>Software Engineer (Embedded Software) — Cambridge Consultants Ltd</b> Working within the Wireless and Digital Services division, I focussed on solving complex low-level bugs in L.E.O. satellite data terminals, often working at the software/hardware/RF boundary.
2015–2016	<b>Freelance</b> Web design. IT consulting. Designing and selling electronics kits. Building a replica classic car.

## Education

2011–2014	BSc (Hons) in Computer Science, First Class. University of Warwick.
2009–2011	A-Levels in Mathematics, Computing, Further Mathematics and Physics. (A*, A*, A, A) Hills Road Sixth Form College, Cambridge.

## Publications

2014	Ryan Suchocki and Sara Kalvala. “Microscheme: functional programming for the Arduino”. <i>Proceedings of the 2014 Scheme and Functional Programming Workshop</i> . Indiana University.
------	--

## Skills & Areas of Expertise

- C and Python (working knowledge of C++)
- Low-level embedded software (bare-metal, custom co-operative schedulers, FreeRTOS, Nucleus RTOS)
- Reverse-engineering and debugging (including in realtime systems with minimal debugging/logging facilities)
- Hand-optimisation, fixed-point arithmetic, SIMD primitives and structuring for compiler optimisations
- Make and CMake
- Git (including advanced CLI usage, rebase-based workflows, managing mirrors/forks)
- GitLab and Bamboo C.I. pipeline design, Docker, ESXi/VSphere
- Linux deployment and administration, TCP/IP networking
- Technical team leadership, one-to-one mentoring and detailed code review
- Working knowledge of DSP concepts (experience in C implementation)
- Working knowledge of digital and analogue electronics design, schematic capture and PCB layout
- Working knowledge of RF circuit design, antenna and propagation theory (Full UK Amateur Radio license)