Ryan Suchocki — Curriculum Vitæ

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

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

Experience

Dec' 2020 – present	**Principal Engineer (Embedded Software) — Cambridge Consultants Ltd** Specialised in MAC and PHY layer software for wireless stacks including for 5G NR, LTE, DECT NR+, Bluetooth and other proprietary systems. Led teams of up to 5 senior software and DSP engineers, designed and implemented software stacks from the ground up, developed robust automated test systems and co-ordinated hardware integration efforts.
June 2018 – Dec' 2020	**Senior Engineer (Embedded Software) — Cambridge Consultants Ltd** Acted as technical lead on a project to improve the efficiency of a two-way messaging protocol on an L.E.O. satellite network, implemented new transceiver firmware and developed an ambitious test framework for automated over-the-air integration testing. Rapidly built trust in a key client-facing role and developed a reputation as a skilled technical communicator.
Oct' 2017 – June 2018	**Software Engineer (Embedded Software) — Cambridge Consultants Ltd** Focussed on solving complex low-level bugs in satellite transceiver firmware, often working at the software/hardware/RF boundary.
2015–2016	**Freelance** Developed and sold custom PCBs as electronics kits (modular automotive intercom, USB-powered DAC/amplifier for high-impedance headphones). Completed design and construction of a replica classic car for a private client. Occasional web design and IT consulting.

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". *Proceedings of the 2014 Scheme and Functional Programming Workshop.* Indiana University.

Skills & Areas of Expertise

- Technical team leadership, mentoring/tuition, technical communication
- Release management, technical authoring, documentation quality control
- C, C++ and Python
- CMake, Make, Git, SVN
- High-performance, multi-threaded, real-time programming
- Low-level embedded programming (bare-metal, custom schedulers, FreeRTOS, Nucleus RTOS)
- Hand-optimisation, fixed-point arithmetic, SIMD programming
- Linux (embedded/server/workstation) development and administration, TCP/IP networking
- Software Defined Radio
- Digital and analogue electronics design, schematic review
- RF circuit design, antenna and propagation theory (Full UK Amateur Radio license)