

WORK EXPERIENCE

RISINGEDGE.PRO FOUNDER & DIRECTOR

July 2026 – Present | Remote

- Founded **RisingEdge.pro** (VANTABYTE LTD) – a browser-based platform for learning FPGA design in VHDL and SystemVerilog, built on a real EDA toolchain (GHDL, Icarus Verilog, Yosys) with interactive waveform visualisation.
- Run the business end-to-end: curriculum design, platform engineering, infrastructure, and operations.

SUSQUEHANNA INTERNATIONAL GROUP LIMITED FPGA ENGINEER

August 2025 – Present | Dublin, Ireland

- A member of the FPGA Team specialising in the design of Low Latency Trading Systems

INDEPENDENT OPEN-SOURCE WORK OPEN-SOURCE DEVELOPER (DURING NON-COMPETE)

December 2023 – July 2025 | Remote / Worldwide

- **PairPods** – Native macOS app for sharing audio between two Bluetooth devices.
- **CoolTaxTool** – Web-based UK tax calculator and visualiser.
- **TastyTrade Analytics Dashboard** – Browser-based privacy-focused trading analysis tool.
- **Synology Dashboard** – Comprehensive Grafana stack for NAS performance monitoring.

JUMP TRADING HARDWARE ENGINEER

April 2021 – November 2023 | Bristol, UK

- Ran a hardware lab focusing on performance, reliability and latency testing of ASIC and FPGA based systems.
- Led system design and development of custom low-latency trading platforms.
- Closely collaborated with various teams to understand each platform's high-level requirements.
- Managed the full hardware development lifecycle, from initial concept through to manufacturing and deployment.

QUALCOMM IC VALIDATION ENGINEER

August 2018 – April 2021 | Cambridge, UK

- Conducted comprehensive IC validation at block- and system-levels.
- Developed a suite of widely used automation tools for test execution, equipment control, data storage, and data analysis.
- Provided innovative solutions that reduced testing time by over 15x while also increasing test coverage by 20x.

INTEL PLATFORM APPLICATION ENGINEERING INTERN

July 2016 – August 2017 | Swindon, UK

- Provided various global OEM customers with technical support and troubleshooting around Intel-based server platforms.
- Delivered impactful product presentations at major industry events, e.g. Intel HPC Demo at HPE Discover London 2016.
- Directly supported Prof. S.W. Hawking, enhancing his communication equipment's reliability and performance.

EDUCATION

UNIVERSITY OF HUDDERSFIELD BENG ELECTRONIC ENGINEERING AND COMPUTER SYSTEMS

2013 – 2018 | Huddersfield, UK

First Class Honours Degree | Average mark over 90%

Undergraduate Project: Reverse engineered the voice synthesiser used by Prof. S.W. Hawking and helped create a hardware-level emulator, which he used as his primary communication tool for the last two months of his life.

SKILLS

Hardware Design & Testing

- FPGA design in VHDL
- System design for custom high-speed, low-latency platforms based on ASIC and FPGA (10GbE, PCIe)
- Comprehensive hardware testing, including latency and stress testing, and performance optimisation
- Schematic capture and PCB design (Altium Designer, OrCAD)

Scripting & Software Development

- Advanced Python, basic JavaScript, C/C++, TCL, Swift
- Scripting and automation for equipment control, hardware testing, and infrastructure maintenance

Test Equipment & Lab Management

- High-speed oscilloscopes and protocol analysers (PCIe, Ethernet) for system testing and validation
- Experienced in running a hardware lab and deploying server infrastructure