

Education	Cardiff University		
	Ph.D. in Electrical Engineering		Anticipated 2023
	Advanced load modulated power amplifiers for wireless telecom applications		
	Carnegie Mellon University		
	M.S. in Electrical and Computer Engineering		May 2014
	B.S. in Electrical and Computer Engineering		December 2012
	Additional Major in Engineering and Public Policy		December 2012
Professional Positions	GNU Radio		
	President		October 2020 - Present
	Technical Lead		2017 - Present
	SETI Institute		October 2020 - Present
	Principal Investigator responsible for the GNU Radio partnership		
	Ettus Research (National Instruments)	Santa Clara, CA/Cardiff, UK	January 2015 – September 2018
	Lead software development and customer interaction of a phased array radar system.		
	Implemented, tested, and maintained the driver for the TwinRX, a two-channel super heterodyne receiver covering 10 MHz to 6 GHz		
	Ran FPGA training courses at multiple conferences to groups of 20-50 attendees		
	Range Networks	(Independent Consultant) San Francisco, CA	January 2013 - May 2014
	Finalized (Altium), manufactured, and debugged a software defined 3G cellular base station radio		
	Designed and implemented the Linux driver (C++) and embedded ARM firmware (C/ASM)		
	Improved the FPGA signal processing pipeline and added self test architecture (Xilinx, Verilog)		
	Performed RF characterization and improved the analog filter circuitry		
Grants	GNU Radio Usability Enhancements	ARDC, \$263K, 1.5 years	2022
Papers	Evolution of Digital Modulation Schemes for Radio Systems	GECCO (Canada)	2014
Talks	Digital Predistortion - Implementation and Use	FOSDEM (Belgium)	2019
	Physics, Math, and SDR	FOSDEM (Belgium)	2018
	Hardware Accelerated Software Defined Radio	SDR Academy (Germany)	2017
	Introduction to Synchronization	GNU Radio Conference	2016
	Optimization of Digital Modulation Schemes using Evolutionary Algorithms	GNU Radio Conference	2015
	Panel: SDR – Is Fully ‘Software Defined’ the Future of Wireless?	Wireless Communications Alliance	2015
	A Short History of Hardware Abuse	GPU Technology Conference	2014
	SDR and GNU Radio Companion for Amateur Radio	Pacificon	2013
Volunteer Experience	GNU Radio Conference Organizer		2017 - Present
	Lead organizer for the 2018, 2020, and 2021 conferences		
	Assisted with the creation and running of the Technical Program for 2017		
	62+ talks over five days, 350+ attendees		
	Radio Society of Great Britain , Technical Forum Member		2018 – 2021
	Small committee providing engineering expertise to the society		
	Reviewed technical publications for the national periodical		