Padraic O Reilly

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Education:

1997 - 2003: Holy Rosary College, Mountbellew, Co. Galway.
Leaving Certificate: 440 Points. Physics, Mathematics, Technical Drawing, Construction, English, German and Irish.

2003 – 2007: Bachelor of Engineering in Electronic Engineering
at the University of Limerick: Grade 2.1.
Mathematics, Signals, Digital Processing, Analogue Circuits and Systems, Digital Circuits and Systems, Control Systems, Physics and Semiconductor Technology, Telecommunication Systems and Networking.

2005 – 2006 Co-op placement EMC Corporation, Ovens, Co. Cork.
EMC is a data storage company with over 1,600 employed in Cork. I worked as a co-op in the supply base management team.

Employment:

Analog Devices, European Research and Development Centre, Limerick, Ireland.

2007 – 2011: **Junior Applications Engineer, Digital to Analog Converters.**
I began my career supporting the low voltage precision digital to analog converter portfolio. I was a technical company representative in detailed technical meetings with communications, industrial and medical customers, visiting Asia(China), USA(Oregon, California, Texas) and Europe(UK, Italy).
Owner of the design-in process and advanced product support for over 100 precision digital to analog converters.
Lead engineer in the definition of a new product platform, *nano*DAC+, through analysis of competition and key customer application profiling. Successfully definition and bringing to market of this product having provided detailed design requirements to IC design engineers.
Writer of new product datasheets, user guides for evaluation board hardware and application notes.
Responsible for the publication of over 50 datasheets, application notes, reference designs and user guides published to the web

detailing product specifications and containing a detailed applications information.

2011 - 2016: **Senior Applications Engineer, Integrated Precision Converters.**

I transitioned to the application specific integrated precision converter team. I gained exposure to on chip ADCs, Microcontrollers, Filtering and FW/APIs ect. I supported Application Specific ICs such as an ECG module (healthcare) as well as precision control ICs specifically for Optical Transceiver Modules. Most of my time was spent interfacing with a large Sweedish customer to define highly successful PA controller ICs. Experience liaising with quality and planning departments to identify customer issues quickly and to respond with a satisfactory resolution to issues in the fastest time possible.

2016 - 2020 **Senior RF Design Evaluation Engineer, PLL & RADAR**

Technical lead on the new product verification of 2 released frequency generation (Phased Locked Loop) projects.
Project manager later project. Liaising with planning and driving other engineering disciplines to bring the product to release on schedule. Used Matlab to develop RADAR demo for internal ADI conferences to explain technology.
Transmitter lead on a complex 77GHz Automotive Radar MMIC within a wider team involving over 100 engineers. Agreed with Applications and Design Engineering Scope of Measurements. Researched and Prepared Software and Hardware. Daily involved in debug work, functionality measurements and characterization across process, voltage and temperature.
Responsible for driving bugs on Si to a satisfactory conclusion in conjunction with teams consisting of design, test and applications engineers.
Supervisor of a graduate engineer and co-operative students.
Network Analyzers (S parameters, loss measurements), Spectrum Analyzers (Spurious Measurements), Phase Noise Analyzers (Phase Noise Measurements), RF Power Meters (Power Meter Measurements). DMMs & Temperature forcing machines.
Experience with more manual prober, anechoic chamber and IR camera measurements.

2020 - Present **Senior Product Engineer, Software Verification Bench, RF Transceivers**

Product Engineer working on Software Verification Bench for next generation 5G New Radio Transceivers. FW and Embedded Software teams develop APIs and SVB develop tests to verify new API functions and test the performance before making the features

available to the customer. Software tools & processes strictly followed with relation to repositories and code maintenance with benches located across the globe all running the same hardware and Teststand/Labview.
Fully completed the characterization of a next generation transceiver for 5G new radio immediately after joining the group. Mentorship of a senior engineer.

Hardware & Software

LabVIEW used to control high frequency RF (Up to 110GHz) instruments and communicate with the part via SPI.
Allegro Cadence to complete both schematic entry and board layout with up to 7 layers using ADS (Keysight RF Schematic Simulation tool) to ensure correct transmission line spacing. C, Teststand, API integration, Python, Assembly.

Students & STEM

Member of the Young Scientist Working group for 5 years. In order to make this exhibit happen a group of up to 20 young engineers voluntarily give their spare time to develop games, puzzles, challenges and interactive demonstrations all aimed at promotion of science and technology. Outside of office hours I developed projects. The Labview based PODs quiz and reaction game appeared on a Children's TV program.

Training Courses:

Labview Intermediate 1 & 2, Labview Basics 1 & 2, Circuits Training, Fundamentals of Mixed Signal Testing, Verilog Primer Course, CCNA Intro, Op Amp training, Oscilloscope Training, ADS basics. Cadence basics. 7 habits of highly effective people.

Hobbies/Interests:

Promoting Engineering as a Career: 5 years experience as an Analog Devices Exhibitor at the Young Scientist and Technology Exhibition in Dublin. 2 years experience at the University of Limerick promoting electronic and computer engineering.
Web design: 2 live websites designed. Experience in Dreamweaver.

References:

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