

Jarlath Dolan

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📍 Dublin, Ireland

Education

UNIVERSITY COLLEGE DUBLIN (UCD)

Masters Degree, Electrical & Electronic Engineering

2019 - 2020

Bachelors Degree, Electronic Engineering

2014 - 2018

Experience

OPTICAL ENGINEERING RESEARCHER | UCD

Jun. 2018 - Sep. 2020

- Designed a highly precise optical sensor that non-invasively measured microscopic eye movement for application in Parkinson's diagnosis.
- Built a vein visualisation tool which detected minor skin trauma and the presence of veins *in-vivo*.
- Developed image processing algorithms in MATLAB and Python which utilised digital image correlation and data interpolation.
- Responsible for mentoring research interns and provided teaching assistance for senior professors.
- Collaborated with other researchers and management, frequently presented findings to corporate interests and published research papers.

WAITER & BARMAN (PART-TIME) | Brady's Pub, Dublin

Aug. 2014 - May 2018

- Responsible for managing inventory for off-license and trusted with opening/closing premises.
- Trained multiple staff members and resolved numerous customer complaints.

INTERNSHIPS:

NSSL, Dublin

Summer 2017

- Assembled PC's for customer use and tested computer components for troubleshooting purposes.

Control Equipment Limited (CEL), Dublin

Summer 2016

- Assisted in building and testing switchgear and substation units used for large scale electrical power systems.

Projects

DIGITAL COMBINATION LOCK

- Designed, verified and programmed a digital keypad combination lock on a Xilinx Artix-7 FPGA using Verilog.

SIMULATED 8-BIT MIPS PROCESSOR

- Simulated a MIPS processor with single cycle architecture in Logisim that ran manually assembled software.

ROBOBUGBY: AUTONOMOUS ROBOT COMPETITION

- Led a team of three to build an autonomous ball-collecting robot to compete in a 25 team competition.
- Responsible for team strategy and programming microcontroller. Used Interactive C, IR/physical sensors, display units.

Skills & Hobbies

SOFTWARE: MATLAB, Python, C, C++, MIPS Assembly Language, Verilog

HARDWARE: Arduino, MSP430

OTHER SKILLS: Soldering, First Aid

HOBBIES: Piano (Grade 7), Drums, Rugby, Golf, Travelling