

Education

- **University College Cork** Cork, Ireland
Marine Renewable Energy (MEngSc) Sept. 2015 – Sept. 2016
 - Key Courses: Wind Energy (81%), Ocean Energy (74%), Sustainable Energy (77%), Environmental Impact Assessment (74%), Offshore Exploration (59%), Tidal Energy (65%), Marine Renewable Energy (82%), Mechanical Systems (75%), Computational Fluid Dynamics (60%), Solar Energy (66%), Coastal Engineering (83%)
- **Dublin City University** Dublin, Ireland
Graduate Diploma in Information Technology; Credit Sept. 2011 – May 2012
 - Key Courses: Object Orientated Programming, Information Systems, Networking and Operating Systems, Database Design, Web Design
- **National University of Ireland - Galway** Galway, Ireland
Bachelor of Engineering (Mechanical); Second Class Honours, First Grade Sept. 2003 – June 2007
 - Key Courses: Finite Element Analysis, Polymers and Composites, Mechanical Engineering Design, Fluid Dynamics, Thermodynamics, Engineering Computing

Engineering Projects

Stability of Vessel for Launch and Recovery of Tidal Energy Device: I am currently working on my Masters project regarding the stability of operations and maintenance vessels.

CFD Analysis of a Tidal Turbine Blade: I modelled a section of a tidal turbine blade using ANSYS Fluent. I compared the results with results obtained from Blade Element Momentum analysis.

Measure Correlate Predict for weather data: I wrote a simple python script to analyse weather data as part of a wind energy assignment. I focused on clarity of code and documentation of methods when writing this script. The code is available on Github.

CFD Analysis of Microfluidic Mixing Devices: For this project I studied the microfluidics of mixing devices using computational fluid dynamics (CFD). This involved modelling a number of designs using 3D CAD software and using the ANSYS CFX software package to analyse the behaviour of fluids flowing through them. This was my final year project for my Bachelor of Mechanical Engineering.

Experience

- **Minesto** Portaferry, Northern Ireland
Masters Placement May 2016 – Current
 - Placed with tidal energy company in their R&D site for Masters project
- **OnePageCRM** Galway, Ireland
Web Application Developer Feb. 2014 – Sept. 2015
 - Worked with the team to develop new features and improvements to the product
 - Agile project management, including leading the weekly team retrospective meeting
 - Regular support responsibilities, both to technical and non technical customers around the world
 - Implemented and maintained automated testing
 - Improved communication with industry partners

- Wrote for the technical blog at developer.onepagecrm.com/blog

• VisualID

Dublin, Ireland

• *Web Application Developer*

June 2012 – Feb. 2014

- Worked in the small team to support and improve the Visual ID web application
- Championed a company wide move to modern project management tools. This improved the project management workflow and dramatically improved communication within the company
- Managed production and development servers - on call 24/7
- Assessed customer requests and added features to the development schedule
- Supported the customer services team with clients worldwide
- Standardised the application to improve the product and reduce developer workload

• Mullaghmore Sailing Club

Sligo, Ireland

• *Activity and Maintenance Manager*

June 2010 – August 2011

- Maintained a fleet of boats and set up new preventative maintenance measures
- Completed boat repairs using fibreglass, epoxy and wood
- Managed a team of 15+ staff, supervising 40+ students per week
- Ran training to upskill staff and dealt with any disciplinary issues
- Revised operating procedures to improve compliance with teaching and safety standards

• Self Employed

Sligo, Ireland

• *Tourism Businesses*

Sept. 2007 – Sept 2011

- Opened and ran the top ranked hostel in the area
- Opened and ran a sailing and kitesurfing school

Skills

General IT Skills: Strong IT skills with an ability to quickly learn new software packages. Experienced with LibreOffice, MS Office, Latex, Google Apps

Computer Programming: Experience with many different programming languages, including Python and Ruby

Engineering Software: Familiar with engineering software including AutoCAD, Autodesk Inventor, Solidworks, ANSYS Fluent / CFX

Data Analysis: Experience with databases and data analysis tools

Interests and Volunteering

Volunteer Lifeboat: I volunteered as a crew member with Sligo Bay RNLI lifeboat for two years. I attended weekly training and was on call 24/7.

Watersports: Strong interest in sailing, kitesurfing, kayaking, sea swimming

Boat building: Wooden boat building - I built a racing dinghy using plywood and composites and competed in a world championships

Programming Mentoring: I volunteered as a coach with Rails Girls Galway, teaching a group of novice programmers the basics of web development

Sea Scouts: Leader with 3rd Sligo Sea Scouts and managed a boat building project with them