

niall.mcmahon@gmail.com

Renewable energy / tech. developer and team builder
Working on machine learning

EXPERIENCE

- Trinity College Dublin, Lead Researcher; Dublin, Ireland** **2015 – Present**
Tools:
Python
- ◊ Snr. research fellow, Distributed Wind Energy Group founder
 - ◊ Led new IEA research task on wind turbine sound/noise to approval
 - ◊ Invited speaker on future of wind energy and AI in wind turbine control and other topics
 - ◊ Python UI and interface for ArcGIS-based Irish wind atlas
 - ◊ Turbine design / noise software library / AI control strategy for small wind turbines
 - ◊ Raised > €150,000 in external funding
- Energy Systems & Tech. Adviser; Intl.** **2014 – Present**
Python
- ◊ Tech review (turbine/hybrid/computing) and market strategy
 - ◊ Included advice on future distributed grid technology, micro-grids and solar farms
 - ◊ Worked with well known companies
- Airsynergy, Head of Product/CTO; Ireland** **2014**
Python
- ◊ Built engineering team/workshop/warehouse in early-stage renewables company
 - ◊ Built computational models, control architecture and Solidworks design studio
 - ◊ Delivered wind turbine system prototypes (kW scale), initiated ISO/IEC and doc. control
- Centre for Renewable Energy at DkIT, Director; Dundalk, Ireland** **2011 – 2014**
- ◊ Wind Energy Lecturer, course director for M.Sc. Renewable Energy Systems
 - ◊ Invited to Hong Kong by govt., spent time researching in Warsaw
 - ◊ Briefed Irish PM on energy future, Ireland's first small- and mid- wind conference
 - ◊ Data analysis for Irish small wind trials, small wind turbine control models
- Ampair, Lead Mechanical Engineer; Dorset, England** **2010 – 2011**
VBA/Python
- ◊ Management team of VC backed company, responsible for mechanical systems
 - ◊ Identified control failure on A6000 5.5 m (5 kW) and worked on return to market
 - ◊ Built diagnostic codes
- Centre for Renewable Energy at DkIT, Researcher; Dundalk, Ireland** **2009 – 2010**
CFD/Python
- ◊ Worked for Larry Staudt, founder of Irish Wind Energy Association
 - ◊ Aerodynamic design for a 3 kW downwind turbine, exp. testing of novel control, wind start-up
- Dublin City University, Researcher; Dublin, Ireland** **2007 – 2009**
- ◊ Assistant to the Theme Leaders
 - ◊ Cross-disciplinary collaboration in energy, 20 funding proposals - one for a new faculty
- Teradyne, Process Engineer; Dublin, Ireland** **1999 -2001**
VBA
- ◊ EMC, Ericsson and Marconi build teams during the end of the dotcom boom
 - ◊ Automated assembly of components onto one of the worlds largest circuit boards, for Marconi.
- ESB, Intern Engineer; Dublin, Ireland** **1997**
VBA
- ◊ Worked to estimate the contemporary worth of the ESB's low-voltage local distribution network assets

EDUCATION

- PhD Computing, DCU** **2002 – 2008**
- ◊ Applied mathematics, fluid dynamics, Python
- BA BAI Mech. Eng, TCD** **1994 – 1998**

MISCELLANEOUS

- ◊ Citizenship: Ireland, EU
- ◊ I'm working on machine learning systems for different applications.
- ◊ See <http://niallmcmahon.com> for more.