

niall.mcmahon@gmail.com

Renewable energy / tech. developer and team builder
Working on artificial intelligence

EXPERIENCE

- AI Start-up; Ireland.** **2016 – Present**
◊ Building AI technology.
- Trinity College Dublin, Lead Researcher; Dublin, Ireland** **2015 – Present**
◊ Snr. research fellow, Distributed Wind Energy Group founder *Tools:*
◊ Led new IEA research task on wind turbine sound/noise to approval *Python*
◊ 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, delivered many talks
- Energy Systems & Tech. Adviser; Intl.** **2014 – Present**
◊ Tech review (turbine/hybrid/computing) and market strategy *Python*
◊ Included advice on future distributed grid technology, micro-grids and solar farms
◊ Worked with well known companies
- Airsynergy, Head of Product/CTO; Ireland** **2014**
◊ Built engineering team/workshop/warehouse in early-stage renewables company *Python*
◊ 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 Taoiseach 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**
◊ Management team of VC backed company, responsible for mechanical systems *VBA/Python*
◊ 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**
◊ Worked for Larry Staudt, founder of Irish Wind Energy Association *CFD/Python*
◊ 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**
◊ EMC, Ericsson and Marconi build teams during the end of the dotcom boom *VBA*
◊ Automated assembly of components onto one of the worlds largest circuit boards, for Marconi.
- ESB, Intern Engineer; Dublin, Ireland** **1997**
◊ Worked to estimate the contemporary worth of the ESB's low-voltage local distribution network assets *VBA*

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.