# Diarmaid de Búrca

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+49 15204133305

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| **DEVELOPMENT EXPERIENCE** | **Senior Software Developer** | Jan. 2022 - Present |

Futurice GmbH, Bergmannstraße 4, Berlin, Germany
- Worked on project basis
- Used Javascript, Java and Kubernetes
- Worked on mobile applications

**Backend Engineer** Apr. 2018 - Nov. 2021

Makersite GmbH, Berlin, Germany
- Maintained and developed Python codebase
- Worked as team lead for different projects

**Data Scientist** Nov. 2017 - Mar. 2018

Rey Analytical Research, Cologne, Germany
- Performed t-tests, z-tests, F-tests, ANOVA and linear modelling as required
- Worked on a project to project basis

**Software Engineer** Feb. 2016 - Oct. 2017

Roslin Institute, University of Edinburgh
- Maintained and extended animal simulation codes
- Developed a graphical user interface for animal simulation codes
- Worked on parallisisation of different simulation codes

**Intern** Sept. 2012

RealSim, Unit 110, Business Innovation Centre, Upper Newcastle, Galway, Ireland
- Developed a supernovae video using Unity3D

**OTHER EXPERIENCE**

**Tutor** Sept. 2010 - Jan. 2016

Physics Department, National University of Ireland, Galway (NUIG)

**Outreach Member** Sept. 2010 - Jan. 2016

Collage of Science, NUIG

**Tour Guide** Sept. 2012 - Nov. 2012

CERN Exhibition, Leisureland, Galway

**EDUCATION**

**Doctorate (Astrophysics), NUIG** Sep. 2010 - Dec. 2015

Thesis: *Synchrotron Emission from Isolated Neutron Stars*
Developed a new model of synchrotron emission from high ($> 10^5$T) magnetic fields in the optical regime. Simulated this model in a MPI Fortran codebase, and compared the simulations against observations of the Crab pulsar. Results showed slight evidence for the slot-gap model of pulsar emission.

**Bachelor of Science(Physics and Applied Mathematics)** Sept. 2006 - May 2010

First Class Honours (78.38%) degre

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| **EXTRA- CURRICULAR ACTIVITIES** | Transport Organisor, , Kiezburn | Apr. 2022 - July 2022 |
| | Art grant coordinator, Kiezburn | Jan. 2022 - July 2022 |
| | Art grant coordinator, Kiezburn | Apr. 2021 - Aug. 2021 |
| | Organiser, March for Science Edinburgh | Apr. 2017 |
| | AstroSoc Comittee Member | Sept. 2012-Feb. 2016 |

- Won Best New Society at the 2014 Board of Irish College Societies Awards
- Won Best Departmental and Best New Society at NUIG Society Awards, 2014

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| | Physics Soc. Treasurer | Sept. 2009 - Sept. 2010 |
| | Chess Soc. Treasurer | Sept. 2008 - Sept. 2010 |
| | Aikido Club Secretary | Sept. 2007 - Sept. 2009 |
| | FanSci Soc. Treasurer | Sept. 2007 - Mar. 2008 |
| | Committee Member for the Leitir Móir Youth Club | Sept. 2006 - May. 2007 |

**SKILLS**

**Computational Languages:**
- Expert in Python
- Fluent in Fortran, Java, Javascript
- Fluent in parallel programming (MPI, OMP, BLAS, LAPACK and SCALAPACK)
- Experience with AWS, GCP
- Experience with Kubernetes, Docker
- Experience with SAS, R and Maple

**Personal Skills**
- Experience leading team development
- Experience driving individual development
- Capable of effective time management

**Other skills**
- Fluent in LaTeX
- Experienced in mathematical analyses

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| **AWARDS** | Scrum Alliance Certified ScrumMaster | May 2022 |
| | Awarded Meritorious Winner in Mathematical Contest in Modelling (MCM) | 2010 |
| | Awarded Successful Participant in MCM | 2009 |
| | Awarded Irish Scholarship from NUIG | 2006 |
| | Winner of Cumann Cois Fharrige | 2006 |
| | Awarded University Scholar of NUIG | 2006 |

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| **COURSES** | Scrum MasterTraining | May 2022 |
| | Evolutionary Quantitive Genetics | 31 Oct. - 4 Nov 2016 |
| | Advanced MPI @EPCC | 29-30 Sept. 2016 |
| | Methods, Strategies and Tools to Generate, Analyse and | 3-7 Jun. 2016 |
| | Basic Molecular Genetics For Bioinformaticians | 19-20 May 2016 |

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| **REFERENCES** | Patrick Burden | |
| | Futurice GmbH | |
| | Contact: +49 (0) 163 3653774 | pburden11@gmail.com |
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| | Dr. Matt Redman | |
| | Physics Dept. NUIG, Ireland | |
| | Contact: +353 (0) 91 493357 | matt.redman@nuigalway.ie |