

# THOMAS DELANEY

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## EDUCATION

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### University of Bristol

*Sept 2016 - Present*

Candidate for a PhD in Computer Science

Research in computational neuroscience.

Focusing on statistical modelling of the fluorescence of calcium indicators and the activity of large populations of neurons.

Conferences: Presented posters at the BNA Festival of Neuroscience 2017 and COSYNE 2018

### University of Edinburgh

*Sept 2014 - Sept 2015*

MSc in Informatics

Thesis in ‘How informative are retinal ganglion cell responses about visual stimuli?’

Modules included: Neural Computation, Machine Learning & Pattern Recognition, Reinforcement Learning, Neural Information Processing, etc.

Overall Result: Distinction

### Trinity College, Dublin

*Sept 2007 - June 2011*

B.A. in Mathematics

Including two years of Theoretical Physics

Final Year Project on Quantum Topos Theory

Poster Project entitled ‘Biomechanics of Human Motion’

Modules included: Mathematical Neuroscience, Introduction to Information Theory, Functional Analysis, etc.

Overall Result: 1.1

### St. Peter’s College, Wexford

*Sept 2002 - June 2007*

Leaving Certificate - 550 points

A1 results in Maths, Physics, Technical Drawing

## EXPERIENCE

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### University of Bristol

*Sept 2016 - Present*

*Teaching Assistant/Invigilator*

*Bristol, England*

- Teaching Assistant for Applied Statistics course. Helping undergraduate students with statistics workshops using Matlab.
- Prepared workshop for prospective computer science students on university open day.
- Exam invigilation.

### Edinburgh Airport Ltd.

*Jan 2016 - Aug 2016*

*Data Engineer*

*Edinburgh, Scotland*

- Worked as a key member of the Airport’s Digital team with a mandate to change every interaction with the airport using technology, data and innovation.
- Main responsibility involved taking in data available from around the business and extracting insights quickly and at low cost.
- Worked with teams such as Commercial, Security, Airfield, Forecasting and Planning to extract, transform and load data, making these datasets useful for these teams, and Edinburgh Airports senior management.

**First Derivatives. Plc**  
*Consultant Software Engineer*

June 2011 - Aug 2014  
*Newry, Ireland*

- Worked as a software engineer on in-house projects, and as a consultant for different financial companies and institutions.
- Four months as kdb+ consultant in Morgan Stanley New York offices, working on the creation and upkeep of a large historical and real-time financial database.
- Four months as kdb+ consultant and team leader in off-shore development centre for Morgan Stanley.
- Seventeen months as kdb+ consultant in a highly responsible role in the London based hedge fund Marshall Wace Asset Management.
- Final three months in team-leader role utilising in-house software for performance reporting on First Derivatives FX trading platform.

**Trinity College Mathematics Dept.**  
*Summer Intern*

May 2010 - Aug 2010  
*Dublin, Ireland*

- Composed a project entitled ‘The Historical and Mathematical Development of Maxwell’s Equations’.
- The objective of this project was to detail the development of Maxwell’s equations from a scientific and mathematical point of view.
- Attended weekly meetings with the project supervisor from the Mathematics Dept.
- Ensured part of this project would be suitable for use in the Classical Field theory or Classical Electrodynamics course in Trinity college.

## TECHNICAL STRENGTHS

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|-----------------------------|--|
| <b>Computer Languages</b>   | Python, Julia, Matlab, Bash, q/kdb+, Java, c++, Batch Scripting, L <sup>A</sup> T <sub>E</sub> X |
| <b>Protocols &amp; APIs</b> | FIX messaging protocol, Geneos monitoring API  |
| <b>Databases</b>            | kdb+, MySQL  |
| <b>Tools</b>                | git, SVN, Vim, crontab, Autosys, Eclipse   |

## SCHOLARSHIPS

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Bristol PhD studentship, funded by the EPSRC  
University of Edinburgh Informatics UK/EU Master’s Scholarship 2014/2015  
Exempt from Senior Freshman Mathematics Final Exams by virtue of Trinity Foundation Scholarship exam results.

## ACHIEVEMENTS

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|---------------------|--|
| <b>Academic</b>     | Consistently excellent academic performance in a number well reputed of universities.  |
| <b>Professional</b> | Working in Morgan Stanley within 3 months of finishing undergraduate degree.<br>Maintaining a consistently high standard of work in every environment. |

## OTHER INTERESTS & SKILLS

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|----------------------------|---|
| <b>Spoken Languages</b>    | English (fluent), Gaeilge (proficient), French (basic)                                      |
| <b>Sport</b>               | Weightlifting, Boxing, GAA (member of University of Edinburgh Gaelic Football Team), Soccer |
| <b>Reading</b>             | Sport or Maths related non-fiction, Irish fiction, etc.                                     |
| <b>Gambling Technology</b> | Using my coding and software knowledge to predict the outcomes of games and matches.        |