

THOMAS DELANEY

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EDUCATION

University of Bristol

Candidate for PhD, Computer Science

Sept 2016 - Present

Bristol, England

- Biophysical modelling of in-vivo fluorescent calcium indicators.
- Statistical analysis of the activity of large populations of neurons, comparing functional clustering of neurons with their anatomical distribution.

Online learning

Neural Networks for Machine Learning

Nov 2017 - Feb 2018

coursera.org

- Course designed by Geoffrey Hinton, University of Toronto

University of Edinburgh

MSc Informatics

Sept 2014 - Sept 2015

Edinburgh, Scotland

- Thesis: How informative are retinal ganglion cell responses about visual stimuli?
- Overall Result: Distinction

Trinity College Dublin

BA Mathematics

Sept 2007 - June 2011

Dublin, Ireland

- Final Year Project: Quantum Topos Theory
- Overall Result: 1.1

St. Peter's College

Leaving Certificate

Sept 2002 - June 2007

Wexford, Ireland

- 550 points

CONFERENCE PRESENTATIONS

BNA2017 Festival of Neuroscience

Poster

April, 2017

Birmingham, England

- Calcium imaging model

COSYNE 2018

Poster

March, 2018

Denver, CO, USA

- Calcium imaging model

UK Neural computation 2019

Poster

July, 2019

Nottingham, England

- Comparing functional clustering to anatomical distribution

CNS 2019

Poster

July, 2019

Barcelona, Spain

- Comparing functional clustering to anatomical distribution

Neural Coding, Computation, and Dynamics 2019

Poster

September, 2019

Capbreton, France

- Comparing functional clustering to anatomical distribution

SCHOLARSHIPS & AWARDS

Bristol PhD studentship, funded by the EPSRC

University of Edinburgh Informatics UK/EU Master's Scholarship 2014/2015

Exemption from Senior Freshman Mathematics Final Exams, Trinity Foundation Scholarship exam results.

PROFESSIONAL EXPERIENCE

University of Bristol

Teaching Assistant/Invigilator

Sept 2016 - Present

Bristol, England

- Teaching Assistant for a variety of courses, Applied Statistics, Data Structures & Algorithms, Machine Learning, Computational Neuroscience, etc.
- Marking for Data Structures & Algorithms, Computational Neuroscience.
- Prepared workshop for prospective computer science students on university open day.
- Invigilated examinations.

CheckRisk

Research Internship

June 2018 - September 2018

Bath, England

- Internship at financial risk assessment company.
- Researched cutting-edge forecasting methods including statistical, machine learning and hybrid methods, including recurrent neural networks.
- Applied these methods to financial data to evaluate domain suitability.

Edinburgh Airport Ltd.

Data Engineer

Jan 2016 - Aug 2016

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 Airport's 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’.
- Detailed 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

Computer Languages	Python, Julia, Matlab, Bash, q/kdb+, Java, c++, Batch Scripting, \LaTeX
Protocols & APIs	FIX messaging protocol, Geneos monitoring API
Databases	kdb+, MySQL
Tools	git, SVN, Vim, crontab, Autosys, Eclipse, Scoop for Parallel Processing

ACHIEVEMENTS

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

OTHER INTERESTS & SKILLS

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