Finlay Maguire

finlaymagui.re | github/fmaguire
finlaymaguire@gmail.com | +1-782-234-3927

EDUCATION

UNIVERSITY COLLEGE LONDON
PhD Bioinformatics
Dec 2015 | London, England
Thesis: A multi-omic analysis of the photosynthetic endosymbioses of *Paramecium bursaria*
Defended: March 2016

OXFORD UNIVERSITY
BA (hons) Natural Science (Biological Sciences)
May 2011 | Oxford, England
Dissertation: Evolution of the eukaryotic folate biosynthesis pathway

COURSES

TAUGHT
Data Management
Bioinformatics Algorithms
Python and Advanced Python
Machine Learning for Life Sciences
Genomics and Transcriptomics
Unix and Perl
Image Processing with Python
Software Carpentry Bootcamp
Supervision of Doctoral, Masters and Undergraduate Researchers

ATTENDED
International Course on Antibiotic Resistance 2017
Gaussian Processes for Global Optimisation 2015
Gaussian Process Summer School 2015
EMBO YIP PhD Course 2013
Woods Hole Molecular Evolution Workshop 2012
MOOCs in Machine Learning, Linear Algebra, Logic, Statistics, Data Analysis, Automata Theory

SKILLS

PROGRAMMING
Expert:
Python • Bash • LaTeX • Unix
Intermediate:
C++ • R • perl • SQL • HPC Systems
Familiarity:
Octave/Matlab • JS (inc. D3.js) • Go

MOLECULAR BIOLOGY
{transcript,gen,metabol}-omics • phylogenetics • microscopy • standard microbiology lab techniques

EXPERIENCE

DALHOUSIE UNIVERSITY | Donald Hill Family Fellow
January 2019 – Present | Halifax, Nova Scotia
- Independent fellowship with paired fellows in Medicine and Sociology all working on societal impacts of technology.
- Expanding previous public health work in genomic epidemiology and antimicrobial resistance.
- Engaging local non-profits and assisting them with exploratory data analysis methods.

DALHOUSIE UNIVERSITY | Postdoctoral Fellow
February 2017 - January 2019 | Halifax, Nova Scotia
- Lead project developing prediction tools for antimicrobial resistance from metagenomes with the Public Health Agency of Canada and Agriculture and Agri-Food Canada.
- Assisted procurement and testing of an IBM machine learning HPC environment.
- Lectured and mentored graduate computer science students.

NEUROGLYCERIN | Competitive Machine Learning Team
Aug 2014 – Present | Edinburgh, Scotland
- Top 5% finishes in two major international competitions.
- Submissions include deep convolutional neural networks, model combining strategies, classical methods, computer vision, feature engineering approaches all used extensively in various competitions.

NASA | Planetary Biology Fellow
July 2013 – Aug 2013 | Kennedy Space Center, Florida
- Acted as NASA representative and scientific adviser to BBC "Cloud Lab" Documentary.
- Researched bacterial adaptations to extreme near-space conditions.
- Designed and implemented trials for a stratospheric balloon flight.
- Work resulted in a publication and journal front cover image.

CONFERENCES

ORAL
Canada Society of Microbiology 2019 • American Society of Microbiology NGS 2018 • International Course on Antibiotic Resistance 2017 • Canadian Institute for Advanced Research IMB Meeting 2016 • Machine Learning for Life Sciences Workshop 2015 • EMBO YIP Meeting 2013

POSTERS
Canadian Society of Microbiology 2018 & 2019 • School of Informatics Jamboree 2015 • EMBO: Comparative Genomics of Eukaryotic Microorganisms 2011 & 2013 • National Association for Research in Science Teaching 2012 • Young Systematists Forum 2011 • SGM Summer Conference 2011

AWARDS

Year	Scope	Award
2018	Global	Donald Hill Family Fellowship
2017	University	Department Conference Prize
2015	University	Informatics Jamboree Prize
2015	57th/1049	National Data Science Bowl
2014	16th/527	American Epilepsy Society Seizure Prediction Challenge
2013	Global	NASA Planetary Biology Fellowship
2013	Global	Earth and Space Foundation Exploration Award
2010	National	SGM Harry Smith Vacation Studentship
2009	University	Dukinfield Exhibition in Biological Sciences

PUBLICATIONS

14 publications including Nature Microbiology, PNAS, Nucleic Acids Research, Royal Society B, and Current Biology. See `goo.gl/04fiwt` for full citation list.