Finlay Maguire

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

Last Updated on 14th April 2018

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

MA (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 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 | Postdoctoral Fellow

February 2017 - Present | 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 | Technical Co-founder

Aug 2014 – Present | Edinburgh, Scotland

- Co-founded and ran a 6-person competitive Machine Learning Team.
- Top 5% finishes in two major international competitions.
- Developed solutions collaboratively using standard software development methods (VCS, TDD).
- 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.

BIOMAP EGYPT | Research Assistant

July 2008 – Aug 2013 | Sinai, Egypt

- GIS project monitoring biodiversity in the Sinai Desert.
- Sampled and performed preliminary data analysis in isolated and challenging conditions.

CONFERENCES

INVITED TALKS

International Course on Antibiotic Resistance 2017 • Canadian Institute for Advanced Research IMB Meeting 2016 • Introduction to Machine Learning for Life Sciences Workshop 2015 • EMBO YIP Meeting 2013

POSTERS

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

2017	University	Department Conference Prize
2015	University	Informatics Jamboree Prize
2015	$57^{th}/1049$	National Data Science Bowl
2014	$16^{th}/527$	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

8 publications including Proceedings of the National Academy of Sciences, Royal Society B, and Current Biology. See `goo.gl/04fiwt` for full citation list.