Finlay Maguire

finlaymagui.re | github/fmaguire
cv@finlaymagui.re | +44-77-6989-5717

Last Updated on 7th August 2016

EDUCATION

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

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

WORKSHOPS

TAUGHT
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
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, Mathematical Logic, Linear Algebra, Databases, Algorithms, Analysis of Algorithms, Probabilistic Graphical Models, Statistics, Data Analysis, Automata Theory, Music Theory

SKILLS

PROGRAMMING
Over 5000 lines:
Python • Shell • R • LaTeX
Over 1000 lines:
C++ • matlab/octave • perl • CSS • AWK • SQL
Familiar:
Verilog • Javascript (inc. D3.js) • Go • HPC Linux Sysadmin

MOLECULAR BIOLOGY
{transcript,gen,metabol}-omics • nucleic acid extraction • culturing • cloning • microscopy

EXPERIENCE

UNIVERSITY OF EXETER | Postdoctoral Fellow
March 2016 - Present | Exeter, England
- Analysing and simulating the evolution of protein transmembrane domains using deep recurrent neural networks
- Automation of *de novo* assembly hyperparameter selection via Bayesian optimisation
- Evaluation of experimental induction and function of RNAi in a novel model organism.

NEUROGLYCERIN | Technical Co-founder
Aug 2014 – Present | Edinburgh, Scotland
- Competitive Machine Learning Team.
- Top 5% finishes in two major international competitions.
- Solutions coding 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
- 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.
- Involved in sampling, collection and preliminary data analysis in isolated and challenging conditions.

CONFERENCES

INVITED TALKS
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

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

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