Benjamin L. Moore

Computational biology PhD

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Education

PhD Bioinformatics (2012-15) *University of Edinburgh*

During my PhD I analysed a diverse array of publicly-available biological datasets to uncover new insights into the epigenetics underlying higher-order chromatin stucture. I integrated Hi-C and other chromosome conformation capture experimental results with... My PhD was supervised by Colin A. Semple and Stuart Aitken in the MRC Human Genetics Unit, IGMM.

MSc Bioinformatics and theoretical systems biology (2011-12) *Imperial College London*

My MSc included both taught (statistics, programming and biology) components, as well as three research projects. These included a software engineering project where I helped develop a stochastic Petri net library in Python with Prof. Michael Stumpf (Sputnik), and another project (since published) in which I applied Guassian mixture modelling to a long-standing problem in structural bioinformatics.

Grade: Distinction

BSc Biology (2008-11) *University of York*

Grade: First class honours

Publications

Integrative modelling reveals the principles of multi-scale chromatin boundary formation in human nuclear organization. (2015) **Moore, BL** *et al.* (Submitted).

High–quality protein backbone reconstruction from alpha carbons using Gaussian mixture models. (2013) **Moore, BL** *et al.* Journal of Computational Chemistry 34 (22), 1881-1889. doi: 10.1002/jcc.23330

Rfam: Wikipedia, clans and the “decimal” release. (2011) PP Gardner, J Daub, J Tate, **Moore, BL** *et al.* Nucleic acids research 39 (S1), D141-D145. doi: 10.1093/nar/gkq1129

Technical

R and Bioconductor	Python and Biopython	LaTeX
Git / Mercurial	UNIX	Bash
Inkscape	Mediawiki	HTML / CSS / Javascript

Projects

EdinbR

I co-founded a usergroup for the R programming language in Edinburgh called EdinbR. I help to organise our monthly meetings and run our website: edinbr.org. Our meetings attract tens of statisticians, data scientists and developers to for talks and discussion around the R language and its applications.

Summer Data Challenge

I entered Imperial College's Summer Data Challenge competition, where entrants analysed a given dataset and then proposed a startup idea based on their results. I developed a modelling technique to select housing areas for investment and was awarded third place: £2,000 and startup support from Imperial Create Lab.

Blog

I author a data science blog at blm.io where I apply R and python to open datasets and write-up the results. My posts have been picked up by sites including FiveThirtyEight, BuzzFeed, AVclub and more, and also led to being an invited blogger at the Huffington Post.