

Alastair Maxwell

Curriculum Vitae

WORK EXPERIENCE

October 2014 – Present

Bioinformatician at University of Glasgow, Scotland

Machine Learning automated genotyping pipeline

Leading design and development of custom platform to genotype Huntington Disease data in an automated manner, accounting for real-world phenomena which typically limits the application of automation. Development of novel Digital Signal Processing module to determine literal amplicon sequence structures, utilisation of Support Vector Machine classifiers to drive a parallel genotyping platform.

September 2016 – November 2016

Software Developer at EMBL-EBI, Cambridge

Collaborative visit for experimental software design

Led design and implementation of a custom software suite to work in tandem with the (ALSPAC project). Solved technical challenges of adapting software to conform to ALSPAC.

March 2014 – October 2014

MSc Research at Keio University, Japan

Carbon-13 (^{13}C) Metabolic flux analysis

Development of an R package for automated ^{13}C analysis, drift correction and isotopolog identification. Production of a Python application that utilises KEGG/Biocyc API's to match Carbon atom transitions and generate FluxML output.

August 2013 – September 2014

Computational Biology Postgraduate Studies

Bioinformatics, Polyomics and Systems Biology

Protein Structure Informatics; Extensive experience with Next-Generation Sequencing technologies and hardware such as Illumina, Roche-454, IonTorrent and resultant data analysis; Machine learning and statistical modelling.

Summer 2013

Summer Intern at SIPBS

Computational Biology Support

Provided computational and statistical input for research groups. Performed O.S. upgrades and administrated user accounts, implementation of both cluster hardware, software and networking equipment upgrades.

September 2012 – May 2013

BSc Research in Immunology

Mucosal Vaccines and Their Future Viability

Studied under Dr. Val Ferro to analyse the effectiveness of Mucosal Vaccines. Large data set analysis and statistical interpretation aided by literature reviews. Became familiar with logistic issues facing mucosal vaccines and developed knowledge (and interest) of computational biology analysis pipelines.



Glasgow, G41



helloabunai.github.io



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A down-to-earth and self-motivated individual, interested in the interface between biology, data and computing.

EDUCATION

2014 **Master of Science**

METABOLOMICS & SYSTEMS BIOLOGY

高度専門士の秀

Keio University, Japan

2014 **Master of Science**

BIOINFORMATICS

Awarded Distinction

The University of Glasgow

2013 – 2014 **Postgraduate Diploma**

BIOINFORMATICS

The University of Glasgow

2009 – 2013 **Bachelor of Science (Hons)**

IMMUNOLOGY & MICROBIOLOGY

First Class with Distinction

The University of Strathclyde

AWARDS

2016 **Best poster award**

IET Glasgow

2014 **最優秀賞 award**

Keio University

2014 **Thomas Blake Glover Scholarship**

Aberdeen Asset Management

2009 – 2013 **Academic Distinction Award**

University of Strathclyde

COMPUTER SKILLS

Object Orientated PERL, PYTHON, JAVA, C++

Scripting LATEX, R, BASH,
Database and Web SQL, HTML, XML,
DJANGO

COMMUNICATION SKILLS

CONFERENCES Oral Presentation at the 10th
Metabolomics Conference – 2014

POSTERS Available on request