

philippbayer

bioinformatician

contact

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languages

German: mother tongue
English: fluent
French & Japanese:
advanced

programming

Python
Go, Perl, Bash, Java
Ruby on Rails, HTML

education

- 2012–current **PhD Applied Bioinformatics** University of Queensland, Brisbane
Working in the applied bioinformatics group on the use of genotyping by sequencing to improve the genome assembly of canola
- 2010–2012 **Master of IT** Bond University, Gold Coast
Graduated with Honours
- 2006–2009 **Bachelor of Science Biology** University of Münster, Germany
Thesis: Analysis of splicing in two populations of marine plants using bioinformatic approaches

experience

- 2013–Now **Software Carpentry instructor** Australia
Certified Software Carpentry instructor. Software Carpentry is a Mozilla/Alfred P. Sloan Foundation funded non-profit organization which teaches best programming practices (Python, reproducible research, version control etc.) in bootcamps to scientists around the world
- 2012–2012 **Research exchange** at Bayer CropScience Ghent, Belgium
For 4 weeks, worked on the assembly of the *Brassica napus* genome. Learned to work in a corporate science environment
- 2011–Now **Co-founder openSNP.org** Germany/Australia
A project for costumers of genotyping companies like 23andMe to share their data with scientists around the world, for free.
Responsibilities:
 - Wrote and still maintain the site's Ruby on Rails code-base
 - Interact with the community of 800-1500 users
 - System administration of the site's server

awards

- 2011–2014 **Postgraduate Scholarship** University of Queensland
Working on genotyping by sequencing
- 2012 **First place in PLOS/Mendeley Binary Challenge** Won with openSNP.org
Won first price in a competition aimed towards the advancement of open science
- 2009–2011 **Master IT** Bond University
5x Top of class, 3x Vice-Chancellor's List for Academic Excellence, 1x IT Award Academic Excellence. Graduated with honours. Recipient of John Oglethorpe Medal for highest GPA of all IT students graduating that semester

communication skills

2013	Poster	Plant and animal genome conference, San Diego
	Genome Assembly Validation and Trait Association using Skim Based Genotyping by Sequencing in Canola	
2013–2014	Software Carpentry	Adelaide/Melbourne
	Assisted Software Carpentry bootcamp in Adelaide, taught basic to intermediate Python as well as documentation and assisted at bootcamp in Melbourne. Currently organizing a bootcamp in Brisbane in July 2014.	
2012	Presentation	28th Chaos Communication Congress, Berlin
	Presented the work on openSNP, talked about the future of personal genomics and privacy implications	
2009–2011	Tutoring	Bond University
	Tutored students in Intro to Programming (Java), Database Management (Oracle/MySQL) and Networks & Applications, held several all-day refresher courses before exams	

interests

professional: genotyping by sequencing, genome refinement, programming languages, machine learning, teaching

personal: literature, running, travel

publications

articles in peer-reviewed journals

High-resolution molecular karyotyping uncovers pairing between ancestrally related Brassica chromosomes.

Annaliese S. Mason, Jacqueline Batley, Philipp Emanuel Bayer, Alice Hayward, Wallace A. Cowling, Matthew N. Nelson

New Phytol (Jan. 2014). 2014

Acclimation to different depths by the marine angiosperm *Posidonia oceanica*: transcriptomic and proteomic profiles.

Emanuela Dattolo, Jenny Gu, Philipp E. Bayer, Silvia Mazzuca, Ilia A. Serra, Antonia Spadafora, Letizia Bernardo, Lucia Natali, Andrea Cavallini, Gabriele Procaccini

Front Plant Sci 4 (2013) p. 195. 2013