# philipp**bayer**

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. Initiated the project with Bastian Greshake 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*