

PHILIPP BAYER, PHD

COMPUTATIONAL BIOLOGY & AI

CONTACT



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[LinkedIn profile](#), [Github profile](#)



35B Archdeacon Street, Nedlands WA

SKILLS

Proficient in Python and R and building ML-based solutions

Ten years of research and academic leadership

Highly developed communication skills

Leader in reproducible research

EDUCATION

PhD, Applied Bioinformatics

University of Queensland

2012-2016

Novel applications of genotyping by sequencing in plant breeding

Master, IT

Bond University

2010-2012

BSc, Biology

University of Münster

2006-2009

LANGUAGES

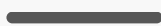
German



English



Japanese



PROFILE

I work at the intersection of artificial intelligence, large-scale data science, and computational biology. I focus on building trustable, interpretable AI that lets government agencies and the public understand complex biological data.

I have delivered over 40 presentations ranging from local data meetups to international research conferences. I am one of the top researchers in my field with more than 150 publications that have been cited by other researchers more than 10,000 times.

WORK EXPERIENCE

Principal, Research Computational Biology

Minderoo, OceanOmics

2022-2023

- Making eDNA-based results reliable and trustable for governments
- Building AI-based tools to let government officials and the public help to understand OceanOmics-generated data and insights
- Training AI to reliably identify fish in eDNA data by curating public and OceanOmics datasets
- Contributing expertise to Minderoo Data & Insights

DECRA Fellow

University of Western Australia

2021-2022

- One of 200 successful yearly applicants in Australia
- Using interpretable machine learning to identify what drives gene birth and gene death in plants
- Working closely with industry to establish AI-based methods in plant breeding and yield prediction
- Member, Scientific Advisory Panel UWA Data Institute

Forrest Fellow

University of Western Australia

2017-2020

- One of three first-ever Forrest Fellows chosen out of more than 400 applicants
- Independent grant to establish postdoctoral studies
- Using AI in plant pangenomics to identify highly variable gene regions in plants
- Two grants (\$829,000) with Grains Research Development Corporations to develop better plant breeding methods using image-based AI and genomics

Postdoctoral researcher

University of Western Australia

2015-2017

- Working on plant pangenomics, analysing >1000 plant genomes to identify variable genes
- Established Hacky Hour, UWA-wide data and coding community
- Became a certified Carpentries instructor to lead coding workshops for researchers