

Heath O'Brien, PhD

Bioinformatician

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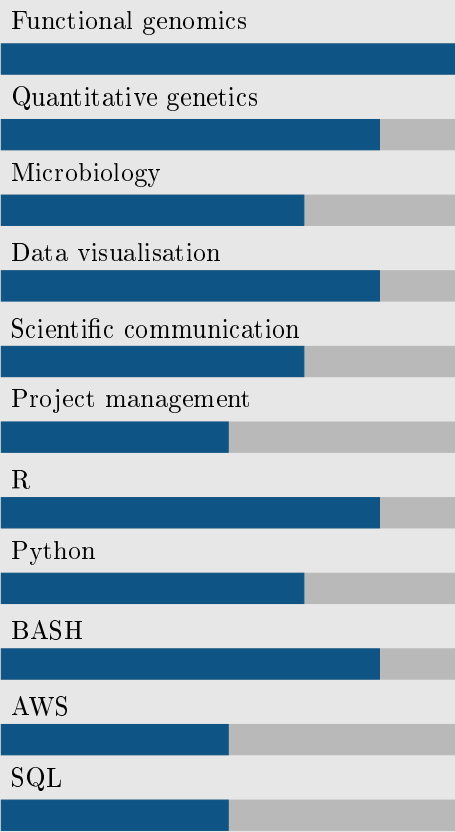


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About me

I have 20 years of experience analyzing genetic data, both in academia and the private sector. I've worked on functional genomics, high-throughput sequencing and genotyping data from plants, fungi, bacteria and humans. I enjoy working on interdisciplinary projects and leading teams with diverse skill sets. I also have strong communication skills, having co-authored over 25 publications and presented my research at conferences in 7 countries.

Skills



Work History

2018-Present	Lead Bioinformatician Living DNA	Frome, UK
	<ul style="list-style-type: none">Leading a team of 6 bioinformaticians and data scientists developing methods to derive ancestry and health insights from direct-to-consumer geneticsManaging partnerships with data suppliers, academic scientists and business incubatorsWorking to secure external funding to develop novel genomic prediction approachesCollaboration with the engineering team to deploy processing pipelines at scale and to improve all steps of sample processing and data delivery	
2016-2018	Research Associate MRC Centre for Neuropsychiatric Genetics and Genomics	Cardiff, UK
	<ul style="list-style-type: none">Differential gene expression and eQTL analyses on human brain samplesIntegration of functional genomics data with large-scale population genomics datasets for schizophrenia and other neuropsychiatric disordersOrganization of training seminars on data science (Rstudio, MySQL), version control (Git), and pipeline development (Snakemake, Bash)Deployment of results on the web using R-Shiny	
2013-2016	Bioinformatician University of Bristol	Bristol, UK
	<ul style="list-style-type: none">Comparative transcriptomics to determine the genetic basis of cell wall patterning responsible for colour-production in plant leavesElectron microscopy of light scattering nanostructures in plants and algaeActing group leader during nine-month family leave cover (overseeing a team of three staff and two students, managing procurement)	
2008-2013	Postdoctoral Fellow University of Toronto	Toronto, ON, Canada
	<ul style="list-style-type: none">De novo assembly and comparative analyses of bacterial genomesCloning of virulence factors and characterization using in-planta infection assaysSupervision of undergraduate students	
2006-2008	Lab Administrator Duke University	Durham, NC, USA
	<ul style="list-style-type: none">Oversight of teaching labs for General and Advanced MicrobiologyManaged one lab technician and eight teaching assistants	

Education

2000-2006	PhD, Molecular systematics of cyanobacteria Duke University	Durham, NC, USA
1994-1999	Bachelors degree, Plant Science University of Alberta	Edmonton, AB, Canada

Training

Advanced Python for Biologists, PR Statistics, February, 2017.
Advancing in R, PR Statistics, April, 2015.
Genetic Data Analysis, Summer Institute in Statistical Genetics, June, 2003.

References

Available on request.