

MARINA VABISTSEVITS

Doctoral student at the University of Bristol, working in the interdisciplinary research of applying data mining methods to answer epidemiological questions

EDUCATION

- 2023 | 2019**
● **PhD, Data mining in Epidemiology**
University of Bristol
📍 Bristol, UK
• Thesis: "Data mining breast cancer epidemiological relationships"
- 2017 | 2015**
● **MSc, Bioinformatics**
University of Copenhagen
📍 Copenhagen, Denmark
• Master's thesis: "Identification of autophagy signatures in breast cancer using The Cancer Genome Atlas data"
- 2015 | 2011**
● **BSc, Biochemistry**
University of Bath
📍 Bath, UK
• Final year project: "Structural analysis of substrate binding in *Sulfolobus solfataricus* 2-keto-3-deoxygluconate aldolase variants"

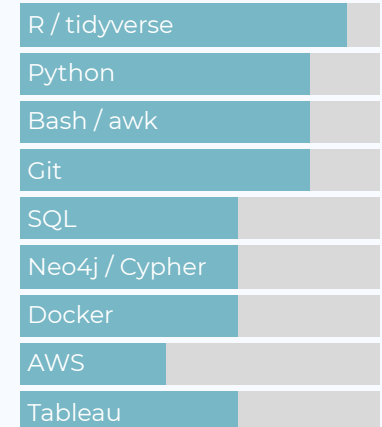
RESEARCH EXPERIENCE

- 2023 | 2019**
● **Doctoral Student**
MRC Intergative Epidemiology Unit
📍 University of Bristol
• Mini-project 1: Implemented a generalisable R workflow of performing multivariate correlation analysis (metaCCA) on several GWAS, using summary statistics from MR-Base, in order to find pleiotropic variants across the measured traits
• Mini-project 2: Carried out a Mendelian Randomisation study to investigate the mechanism mediating the effect of early life BMI on breast cancer risk
• Main PhD project: Working with EpiGraphDB, a Neo4j graph database, to answer causal relationship questions in breast cancer and build a comprehensive model of the disease aetiology, by applying data mining and machine learning methods
- 2017 | 2016**
● **Visiting Researcher / Master's Thesis Student**
Danish Cancer Research Centre
📍 Copenhagen, Denmark
• For my master's project, I was invited to the DCRC as a visiting researcher after building positive working relationships during collaborations earlier in my master's degree.
• Explored TCGA breast cancer gene expression RNA-Seq data to identify the involvement of autophagy-related genes in certain disease subtypes.
• Performed an extensive EDA, followed by differential expression and enrichment analyses, allowing me to find over-represented autophagy genes
• Built an efficient workflow in R, and identified and applied a new method to this field, which was enthusiastically adopted by other group members

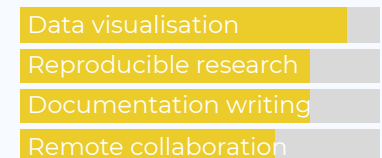
CONTACT

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TECH SKILLS



OTHER SKILLS



CV made with the R package [pagedown](https://pagedown.org).

Code available at github.com/mvab/cv.

Last updated on 2021-02-07.



INDUSTRY EXPERIENCE

2021
|
2020

• Data Scientist (Senior Executive Officer)

Public Health England

📍 UK

- Currently undertaking a 6-month part-time secondment at PHE Data Surveillance and Management team, working within the Contact Tracing cell to assist with COVID-19 transmission data analysis
- Working with a large group of epidemiologists and R developers on processing and analysing the daily cases and contacts data to extract useful insights into the pandemic development in the UK
- Contributed to the investigation of the new variant identified in December 2020, which was published as a technical briefing for the government

2020
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2017

• Bioinformatician

Living DNA

📍 Frome, UK

- Led the research work on improving the ancestry reference panels used by the core pipeline behind the company's direct-to-consumer ancestry genetics test, bringing considerable improvement to results accuracy
- Gained experience in working with a legacy codebase through maintaining and contributing to the in-house pipelines (Python)
- Honed my R programming skills by switching to tidyverse approach and advanced my data visualisation skills

2017
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2016

• Student research assistant in the Big Data group

3Shape

📍 Copenhagen, Denmark

- Performed data preparation and visualisation tasks in Python, gaining practical experience of programming in a professional environment
- Used deep learning framework Caffe2 to develop a neural network training pipeline for scan image classification tasks

2014
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2013

• Placement Student in Bioinformatics team

Oxford Gene Technology

📍 Oxford, UK

- Became responsible for a multitude of exome- and RNA-seq projects, running in-house data analysis pipelines and performing custom analysis for different projects



EXTRA CONTRIBUTIONS

2020

• COVID-19 data analytics Hackathon

by TrueCue and Women in Data

2020

• Food Standards Agency Data Visualisation Challenge

by Jean Golding Institute and FSA

📍 Runner-up prize

2018

• Air pollution in Bath hackathon with Bath:Hacked group

by BreATHe project by B&NES Council

2018

• Hackathon for Dogs Trust charity

by Microsoft and R-Ladies London

2017

• Hackathon for Danish Cancer Society

by Deloitte and Danish Cancer Society

📍 Best Technical solution Award