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

Paristol, 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

Path, 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 GWAS summary statistics data from OpenGWAS, in order to find pleiotropic variants across the measured
- · 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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- marina vab
- aithub.com/mvab
- marinalearning.netlify.com
- in linkedin.com/marina-

vabistsevits-82590443

TECH SKILLS

OTHER SKILLS

CV made with the R package pagedown.

Code available at github.com/mvab/cv.

Last updated on 2021-02-08.

INDUSTRY EXPERIENCE

2021 2020

Data Scientist (Senior Executive Officer)

Public Health England

O 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 2017

Bioinformatician

Livina 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 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 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

COVID-19 data analytics Hackathon 2020

by TrueCue and Women in Data

2020 Food Standards Agency Data Visualisation Challenge by Jean Golding Institute and FSA

Runner-up prize

Air pollution in Bath hackathon with Bath: Hacked group 2018

by BreATHe project by B&NES Council

Hackathon for Dogs Trust charity 2018

by Microsoft and R-Ladies London

Hackathon for Danish Cancer Society 2017

by Deloitte and Danish Cancer Society

Pest Technical solution Award