# KASIA KEDZIERSKA

I am a 2nd year DPhil Candidate at the University of Oxford, studying the chromatin organisation in endometrial cancer. As a bioifnormatician, I spend most of my time either in command line writing Bash/Awk scripts or doing data analysis in R/Python.

I like teaching and deeply believe in Open Science. I am the President of #NGSchool Society with which I've been organising Summer Schoools in Bioinformatics. During last year edition - #NGSchool2019: Machine Learning for Biomedicine we recorded and published some of the lectures. This year, during #NGSchool2020: Statistical Learning in Genomics and NGSymposium in Computational Biology we plan to record many more.
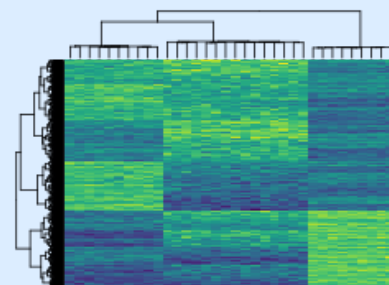
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RESEARCH EXPERIENCE

2022 | 2018

DPhil Candidate

Church group @ Wellcome Centre for Human Genetics, Wedge group @ Big Data Institute

📍 University of Oxford, UK

· PhD project: *Functional and evolutionary characterisation of chromatin organisation in endometrial cancer*

2018 | 2017

Visiting Graduate Student

Ratan group

📍 University of Virginia, USA

· Developed SONiCS - a tool for genotyping short tandem repeats (STRs) profiled using capture assays.
· Worked on the Master thesis - *Analysis of the mutational burden across gene sets in cancer.*

2017 | 2016

Visiting Graduate Student

Pemberton group

📍 University of Virginia, USA

· Worked on Epigenetic regulation in prostate cancer.
· Performed experiments and analyzed data from RNA-seq, ATAC-seq, and ChIP-seq assays.

2016 | 2015

Research Assistant

Zebrafish Developmental Genomics

📍 IIMCB, Warsaw, Poland

· I worked on the project: *Elucidating gene regulatory network of zebrafish heart development using genomics.*
· I was responsible for both computational and experimental aspects of the project.

CONTACT

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🐦 kzkedzierska

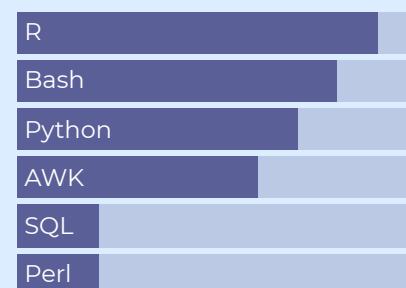🐙 github.com/kzkedzierska

🔗 kasia.codes

in kzkedzierska

LANGUAGE SKILLS

R

Bash

Python

AWK

SQL

Perl

Made with the R package ***pagedown***.

Based on the Nick Strayer's CV package; modified source code for this CV is available here.

Last updated on 2020-10-15.

🎓 EDUCATION

2022
|
2018
DPhil. Candidate, Genomic Medicine and Statistics
Nuffield Department of Medicine, Brasenose College

📍 University of Oxford, UK

· Project: *Functional and evolutionary characterisation of chromatin organisation in endometrial cancer.*
· Wellcome Trust Studentship

2018
|
2015
M. Sc. Eng., Biotechnology
Warsaw University of Technology

📍 Warsaw, Poland

· Thesis: *Analysis of the mutational burden across gene sets in cancer.*
· Thesis awarded the title of the best Master thesis in Bioinformatics defended in 2018.

2015
|
2011
B. Sc. Eng., Biotechnology
Warsaw University of Technology

📍 Warsaw, Poland

📖 PUBLICATIONS

2020
The *MLH1* polymorphism rs1800734 and risk of endometrial cancer with microsatellite instability

· MLH1 promoter polymorphism, rs1800734, association with MSI EC risk.

2020
Prognostic integrated image-based immune and molecular profiling in early-stage Endometrial Cancer

· Quantification of intraepithelial CD8+ cells improved upon the prognostic utility of the molecular EC classification in early-stage EC

2019
Dynamics of cardiomyocyte transcriptome and chromatin landscape demarcates key events of heart development
Genome Research

· Regulation networks in heart developmnent in zebrafish.

2018
Genomic analysis of DNA repair genes and androgen signaling in prostate cancer
BMC Cancer

· DNA repair genes and androgen signalling in prostate cancer cell lines.

2018
SONiCS: PCR stutter noise correction in genome-scale microsatellites
Bioinformatics

· Tool for genotyping short tandem repeats (STRs) profiled using capture assays, github.com/kzkedzierska/sonics

💬 POSTERS, AND TALKS

2019

Analysis of the mutational burden across gene sets in cancer
Polish Bioinformatics Society Symposium ⚐ Cracow, Poland

· Invited talk

2018

Differential mutation analysis across gene sets in cancers
The Biology of Genomes 2018 ⚐ Cold Spring Harbor, NY, USA

· Poster

2017

Epigenetic regulation of prostate cancer
Visiting Graduate Traineeship Program Grantees Symposium
⚐ Charlottesville, VA, USA

· Talk

🎖 AWARDS AND HONOURS

2019
|
2018

Best Master Thesis in Bioinformatics

· The Best Master Thesis defended in the field of Bioinformatics in 2018 in Poland.
· *Analysis of the mutational burden across gene sets in cancer* Masther thesis defended at the Warsaw University of Technology; code for the analyses can be accessed github.com/kzkedzierska/cancers

2017
|
2016

Visiting Graduate Traineeship Program

· The Visiting Research Graduate Traineeship Program offered 12-month research traineeships for outstanding, qualified students from the life sciences at selected institutions in the United States.

2015

Grasz o Staz

· "Grasz o Staz" competition was a national, prestigious and highly competitive (1:25 success rate) scholarship program in Poland organized by PwC.

🖥 TEACHING EXPERIENCE

2020

Online Python tutorials

· NGSeminars run over the summer due to cancellation of the NGSchool. I lead the following two tutorials: **Introduction to Python** kasia.codes/talk/intro_to_python/ and **Python for Data Science** kasia.codes/talk/py4ds/.

2019 • **Unsupervised learning, Introduction to Python**

#NGSchool2019: Machine Learning for Biomedicine

· Tutor for the Introduction to Python (3 h workshop) and for the
  Unsupervised learning (1,5 h lecture).
· Materials for the Introduction to Python are available on github

2019 • **Introduction to R**

Wellcome Centre for Human Genetics

· 8 week course in Introduction to R, Data Manipulation, Data Visualisation
  and RNA-seq data analysis.
· Materials available on github/kzkedziersa/r_intro

2017 • **ATAC-seq workshop**

#NGSchool2017: Single-cell Sequencing

· Invited speaker
· Materials for the course can be available on
  gitub.com/kzkedzierska/ATACseq_workshop

🎓 ATTENDED WORKSHOPS, SUMMER SCHOOLS

2019 • **Machine Learning Summer School**

Imperial College London, University College Londn

📍 London, United Kingdom

· 12-day intensive course on a variety of topics in machine learning.

€ GRANTS

**2021
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2020** • **Visegrad Grant to organize #NGSchool2020 – postponed until 2021**

· A platform to share expertise in the field of Next Generation Sequencing
  data analysis and general bioinformatics.

2019 • **Visegrad Grant to organize #NGSchool2019**

Visegrad Fund

· 23,500 EUR awarded towards organising #NGSchool2019 allowed to keep
  the cost of attenting the school to the minimum and record the lectures
  for broader access.

🤝 NON PROFIT WORK

**2021
|
2018** • **President**

NGSchool Society

· The goal of the Society is to promote and support science, with
  emphasis on computational biology.
· President since 2019; Vice President 2018 - 2019