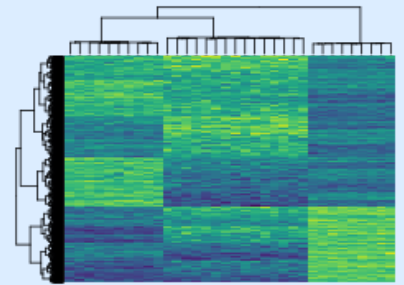


# KASIA KEDZIERSKA

I am a 3rd year PhD student at the University of Oxford. I am a computational biologist, i.e., I use Data Science and Statistical Machine Learning to answer biological questions. Specifically, I study cancer of the uterus and chromatin organisation in disease progression. To efficiently preprocess terabytes of data, I take advantage of Bash/Awk oneliners and scripts. Then, I analyse and visualise preprocessed data in R and Python.

I like teaching and deeply believe in Open Science. With [#NGSchool Society](#) which I'm the president of I've been organising Summer Schools in Bioinformatics. During last year edition - [#NGSchool2019: Machine Learning for Biomedicine](#) we recorded and published some of the lectures. This year, because of the pandemic, we switched to organising virtual events - [NGSeminars series](#). We made all the content publicly available.



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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

✉ [kasia@well.ox.ac.uk](mailto:kasia@well.ox.ac.uk)

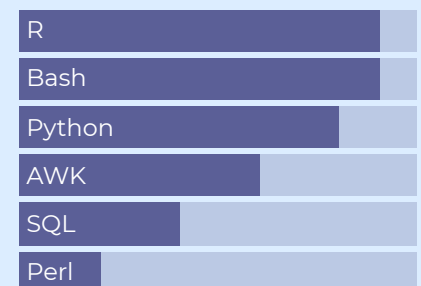
🐦 [kzkedzierska](#)

🔗 [github.com/kzkedzierska](https://github.com/kzkedzierska)

🔗 [kasia.codes](#)

in [kzkedzierska](#)

## LANGUAGE SKILLS



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 2020-11-25.



## EDUCATION

2022  
|  
2018

### DPhil. Candidate, Genomic Medicine and Statistics

Nuffield Department of Medicine, Brasenose College

📍 University of Oxford, UK

- PhD fully funded by Wellcome Trust Four-year PhD Studentships in Science

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 best Master thesis in Bioinformatics defended in 2018 title.

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

H. Russell, K. Kedzierska, D. D. Buchanan, R. Thomas, E. Tham, M. Mints, A. Keränen, G. G. Giles, M. C. Southey, R. L. Milne, I. Tomlinson, D. Church, A. B. Spurdle, T. A. O'Mara and A. Lewis

📍 Clinical Epigenetics

2020

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

N. Horeweg, M. de Bruyn, R. A. Nout, E. Stelloo, K. Kedzierska, A. León-Castillo, A. Plat, K. D. Mertz, M. Osse, I. M. Jürgenliemk-Schulz, L. C.H.W. Lutgens, J. J. Jobsen, E. M. van der Steen-Banasik, V. T. Smit, C. L. Creutzberg, T. Bosse, H. W. Nijman, V. H. Koelzer and D. N. Church

📍 Cancer Immunology Research

2019

### Dynamics of cardiomyocyte transcriptome and chromatin landscape demarcates key events of heart development

M. Pawlak, K. Z. Kedzierska, M. Migdal, K. A. Nahia, J. A. Ramilowski, L. Bugajski, K. Hashimoto, A. Marconi, K. Piwocka, P. Carninci and C. L. Winata

📍 Genome Research

2018

### Genomic analysis of DNA repair genes and androgen signaling in prostate cancer

K. Jividen, K. Z. Kedzierska, C.-S. Yang, K. Szlachta, A. Ratan and B. M. Paschal

📍 BMC Cancer

2018

### SONICS: PCR stutter noise correction in genome-scale microsatellites

K. Z. Kedzierska, L. Gerber, D. Cagnazzi, M. Krützen, A. Ratan, L. Kistler

📍 Bioinformatics



## 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* Master thesis defended at the Warsaw University of Technology
- 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 tutorials: Python for Data Science and Introduction to Python**  
NGSeminars YouTube  
• I led two Python tutorials: [Introduction to Python](https://kasia.codes/talk/intro_to_python/) [kasia.codes/talk/intro\\_to\\_python/](https://kasia.codes/talk/intro_to_python/) and [Python for Data Science](https://kasia.codes/talk/py4ds/) [kasia.codes/talk/py4ds/](https://kasia.codes/talk/py4ds/).
- 2020 | 2019 • **Introduction to Managing Code with Git**  
Wellcome Centre for Human Genetics Oxford, United Kingdom  
• I led a 2-hour introduction to working with Git. Materials, including slides and exercises are available at [kasia.codes/talk/into\\_to\\_git/](https://kasia.codes/talk/into_to_git/).

- 2019 • **Unsupervised learning, Introduction to Python**  
[#NGSchool2019: Machine Learning for Biomedicine](#) 📍 Ostróda, Poland
- 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 📍 Oxford, United Kingdom
- 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](#) 📍 Jachranka, Poland
- 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



## GRANTS

- 2021  
|  
2020 • **Visegrad Grant to organize [#NGSchool2020](#) – postponed until 2021**  
[Visegrad Fund](#)
- 32,190 EUR awarded towards organising #NGSchool2020 and #NGSymposium. Both events are postponed until 2021.
- 2019 • **Visegrad Grant to organize [#NGSchool2019](#)**  
[Visegrad Fund](#)
- 23,500 EUR awarded towards organising #NGSchool2019 allowed to keep the cost of attending 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