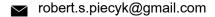
Robert Piecyk

Data Scientist | Bioinformatician



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RELEVANT RESEARCH EXPERIENCE

02/2024 - current

LMU-Klinikum; Postdoc researcher in Translational Oncology

München, DE

- Integrative data analysis: Comprehensive experience in combining genomic, epigenomic, transcriptomic, imaging, and spatial profiling data to address complex biological questions.
- Cancer research: Investigation of molecular mechanisms and discovery of potential biomarkers across cancer models and patient cohorts.
- Multimodal learning for clinical prognosis: Development of analytical pipelines integrating medical imaging, histopathology, and molecular profiling for precision oncology.
- Data-driven discovery: Skilled in managing and interpreting large-scale biological datasets to identify regulatory mechanisms, discover biomarkers, and treatment stratification opportunities.
- Mentorship and collaboration: Experienced in supervising and training graduate students and collaborating across disciplines in academic and clinical research settings.

09/2020 - 12/2023

Technical University of Munich; PhD student in Epigenomics and Epigenetics

Freising, DE

- Conducted studies on the molecular and epigenetic mechanisms underlying genome regulation, applying advanced computational and integrative multi-omics approaches.
- Investigated the role of DNA sequence features and epigenetic patterns in shaping biological traits across hybrid systems.
- Developed an R package for calling differentially methylated regions from WGBS data across
- Supported academic teaching and training through course assistance, student supervision, and provision of technical infrastructure for research activities.

07/2019 - 09/2019

European Bioinformatic Institute EMBL-EBI; Master student in Comparative Genomics

Hinxton, UK

- Contributed to large-scale genome research as part of the Mouse Genomes Project under the supervision of Prof. Thomas Keane.
- Applied and modified computational tools for comparative genomics in *Mus musculus*, including variation graph–based approaches for pangenome analysis in UNIX environments.

07/2018 - 08/2018

Institute of Oncology; Volunteer in Proteomics

Gliwice, PL

- Worked in partnership with the Center for Translational and Molecular Biology of Cancer on bioinformatics and data management initiatives.
- Proposed and prototyped a software solution for biobank management, incorporating SQL database design and Python-based tools.

08/2017 - 09/2017

Helmholtz-Zentrum-München; Bachelor student intern (Erasmus+) in Biostatistics

München, DE

· Collaborated with the Institute of Radiation Biology under the supervision of Dr, Soile Tapio.

• Contributed to a comparative study on the response of mouse hippocampal cells to low-dose irradiation, applying biostatistical analysis and proteomics workflows (ICPL, LC-MS/MS).

SKILLS

Programming \cdot Python \cdot R \cdot SQL \cdot Bash \cdot Matlab

DevOps · Linux (standalone and clusters) · Git · Docker · Singularity

Data Science · statistics · Machine Learning · Deep Learning · Tensorflow · sci-kit learn · OpenCV ·

· Google Colab · AWS · Microsoft Azure

Bioinformatics · DNA-Seq · RNA-Seq · WGBS · LC-MS/MS · ICPL · ATAC-Seq · 5mC

Soft skills Strong communication, organizational, and leadership abilities, with proven capacity to coordinate

and guide collaborative work.

· Experienced in managing multiple projects simultaneously while maintaining quality and meeting

deadlines.

EDUCATION

09/2020 – 12/2025 Technical University of Munich; Doctoral studies (Dr. rer. nat.)

Freising, DE TUM School of Life Sciences (Specialization: Bioinformatics and AI)

Thesis: Scalable detection of DNA methylation remodeling in epigenetic hybrids

02/2019 – 09/2020 Silesian University of Technology; Master studies (MSc)

Gliwice, PL Automatic control and robotics, electronics and telecommunication, informatics (Specialization: Data

Science)

Thesis: Development of the bioinformatics tool for automated identification of liver metastases in

MRI data

10/2015 – 01/2019 Silesian University of Technology; Engineer studies (BEng)

Gliwice, PL Biotechnology (Specialization: Bioinformatics)

Thesis: The comparison study on the response of the mouse hippocampus cells to low dose

irradiation

LANGUAGES

English C2
German B2

Polish C2 (native)

ORGANISATIONS

03/2017 – 09/2020 Students' Union at Faculty of Automatic, Electronics and Computer Science; Academic

Group Leader

· supervision of foreign students and student research groups

• co-organizer of 'Code with Accenture. Hackathon AEI 2019'

10/2016 – 09/2020 Bioinformatics Students Association at Silesian University of Technology; Senior member

• regular member in 2016; member of the Board in 2017

01/2016 - 09/2020 BioLetyn (ISSN: 2392-2982); Editorial member

· author of nine papers published in students' biotechnological quarterly

01/2016 - 09/2020 Scientific Society of Biotechnology at Silesian University of Technology; Senior member

• regular member in 2016; Coordinator of Organisational Matters in 2017; President in 2018

• organizer of Silesian Days of Biotechnology in 2018, awarded in the nationwide contest KoKoN

2018, as the best conference coordinated by the students from the technical universities in

Poland

HOBBY