Robert Piecyk

Data Scientist | Bioinformatician

robert.s.piecyk@gmail.com

+49 176 80365573

linkedin.com/in/robert-piecyk

xing.com/profile/Robert_Piecyk

RELEVANT RESEARCH EXPERIENCE

02/2024 – current
München, DE

LMU-Klinikum; Postdoc researcher in Translational Oncology

• 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
Freising, DE

Technical University of Munich; PhD student in Epigenomics and Epigenetics

• 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 populations.

• Supported academic teaching and training through course assistance, student supervision, and provision of technical infrastructure for research activities.

07/2019 – 09/2019
Hinxton, UK

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

• 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
Gliwice, PL

Institute of Oncology; Volunteer in Proteomics

• 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
München, DE

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

• 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	· Python · R · SQL · Bash · 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

environmental protection · biking · hiking · climbing · baking · ballroom dancing · education · olfactory