Aleksandar Anžel

⚲ Hans-Meerwein-Str. 6,
D-35032 Marburg, Germany

☎ +49 64 212 821 587

✉ aleksandar.anzel@uni-marburg.de
Born 06.08.1995.

in AAnzel

○ AAnzel

🐦 AleksandarAnzel

www https://aanzel.github.io

WORK EXPERIENCE

October 2021 – present

Data Scientist

eMedicals Healthtech GmbH, Frankfurt am Main

- Use analytical, statistical, and programming skills to collect, analyze, and interpret large medical and biological data sets. Manage algorithm development, machine learning workflows, and statistical techniques to produce solutions to problems quickly. Closely work with university partners (i.e., Technische Universität Darmstadt) and research organisations (i.e., Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.) to improve and further develop algorithms relevant to the company. Co-manage hiring process and co-lead a small team of Data Scientists and ML Engineers.

December 2020 – present

Research assistant

Heider Lab, Philipps-Universität Marburg, Marburg

- Develop Bioinformatics and ML pipelines for Omics problems. Design, implement and evaluate automatic workflows for information storage systems that are based on the molecular storage media. Adapt existing and create new visualization methods for biological and medical data sets.

EDUCATION

2020 – present

Ph.D. degree in Computer Science

Philipps-Universität Marburg

August 2021

OxML summer school participant

Machine Learning summer school, University of Oxford

2018 – 2020

Master's degree in Mathematics

Module: Computer Science and Informatics
Faculty of Mathematics, University of Belgrade

- Average grade: 10.00 (out of 10.00)
- Thesis: *Determining protein N-glycosylation with machine learning methods*

2014 – 2018

Bachelor's degree in Mathematics

Module: Computer Science and Informatics
Faculty of Mathematics, University of Belgrade

- Average grade: 8.66 (out of 10.00)

SKILLS

Languages

Serbian – Native proficiency
English – Full professional proficiency
- Cambridge English: First (FCE): upper intermediate (B2 in CEFR)
German – Elementary proficiency
French – Elementary proficiency

Computer Science	Software Development
	  • C, Python, C++, Java, MATLAB, Shell, Haskell, Assembly IA-64, Assembly ARM-32
	Machine Learning
	  • Keras, Tensorflow, Scikit-learn
	Data Management
	  • SQL
	Bioinformatics, Scientific Computing, High-Level Visualization, CI/CD, Containerization (Docker)

Document manipulation	LaTeX, Libre Office Suite, Microsoft Office Suite
Soft skills	• Excellent organizational and communication skills • Ability to work collaboratively with people at all professional levels • Thoroughness, with rigorous attention to both detail and quality

PROJECTS

Bioinformatics	• *Determining protein N-glycosylation with machine learning methods* • *Modification and analysis of UPGMA algorithm while using different metrics* • *MOVIS: A Multi-Omics Software Solution for Multi-modal Time-Series Clustering, Embedding, and Visualizing Tasks*
Computer Science	• *Finding Waldo using various Machine Learning methods* • *Image modification and correction with Python* • *Determining integer variable ranges using Abstract Interpretation in C++ (LLVM, Clang)* • *AVL trees in C programming language*

SELECTED EVENTS

2022	• *The 1st International Conference on Data Storage in Molecular Media.* Virtual. (attendee, co-host)
2021	• *IEEE Visualization Conference (VIS).* Virtual. (attendee) • *Bio+Med+Vis Spring School.* Virtual. (attendee) • *Symposium on Interdisciplinary Bioinformatics and Biomedical Data Science (IBBMDS).* Marburg, Germany. (presenter)
2020	• *IEEE Visualization Conference (VIS).* Salt Lake City, Utah, USA. (attendee) • *Eurographics & Eurovis (EGEV).* Norrköpping, Sweden. (attendee)

TEACHING

2022	• <u>*Guest lecture, Molecules as storage media for long-term data storage.*</u> Faculty of Mathematics, University of Belgrade. Belgrade, Serbia. (presenter) • <u>*Group student project (Projektarbeit), DNA Storage Encodings.*</u> Department of Mathematics and Computer Science, University of Marburg. Marburg, Germany. (co-organizer, tutor) • <u>*Seminar, Information Theory Tools for Visual Computing.*</u> Department of Mathematics and Computer Science, University of Marburg. Marburg, Germany. (co-organizer, presenter)
2021	• <u>*Group student project (Projektarbeit), DNA Storage Encodings.*</u> Department of Mathematics and Computer Science, University of Marburg. Marburg, Germany. (co-organizer, tutor) • <u>*Seminar, Information Theory Tools for Visual Computing.*</u> Department of Mathematics and Computer Science, University of Marburg. Marburg, Germany. (co-organizer, presenter) • <u>*Lecture, Data Visualization.*</u> Department of Mathematics and Computer Science, University of Marburg. Marburg, Germany. (collaborator)

ADVISING & SUPERVISION

2022
- Jing Chen, B.Sc., Bioinformatics (BI). Department of Mathematics and Computer Science, University of Marburg. Marburg, Germany.
- Fabio Rougier, M.Sc., Computer Science (CS). Department of Mathematics and Computer Science, University of Marburg. Marburg, Germany.

2021
- Fabio Rougier, M.Sc., Computer Science (CS). Department of Mathematics and Computer Science, University of Marburg. Marburg, Germany.

PUBLICATIONS

2022
- Anžel, A., Heider, D., & Hattab, G. (2022). *MOVIS: A multi-omics software solution for multi-modal time-series clustering, embedding, and visualizing tasks.* Computational and Structural Biotechnology Journal, 20, 1044–1055. 10.1016/j.csbj.2022.02.012

2021
- Anžel, A., Heider, D., & Hattab, G. (2021). *The Visual Story of Data Storage: From Storage Properties to User Interfaces.* Computational and Structural Biotechnology Journal, 1(1), 1. 10.1016/j.csbj.2021.08.031

ADDITIONAL INFORMATION

Driving licence Category B (cars)

Interests Technology, Research, Computer Science, Bioinformatics, Linux, FOSS, Science Fiction, Fantasy, The Matrix, Video games, Hiking