Aleksandar Anžel

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Born 06.08.1995.

AAnzel

AAnzel

AleksandarAnzel

https://aanzel.github.io

WORK EXPERIENCE

October 2021 – present

Data Scientist

eMedicals Healthtech GmbH, Frankfurt am Main

- Using analytical, statistical, and programming skills to collect, analyze, and interpret large medical and biological data sets. Managing algorithm development and using machine learning tools and statistical techniques to produce solutions to problems.

December 2020 – present

Research assistant

Heider Lab, Philipps-Universität Marburg, Marburg

- Creating bioinformatics pipelines, using ML for organic storage modeling, using ML for omics problems, using ML for human-centered visualization

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, Data Science, Visualization

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
- *Guest lecture, Molecules as storage media for long-term data storage.* Faculty of Mathematics, University of Belgrade. Belgrade, Serbia. (presenter)

2021
- *Seminar, Information Theory Tools for Visual Computing.* Department of Mathematics and Computer Science, University of Marburg. Marburg, Germany. (co-organizer, presenter)
- *Lecture, Data Visualization.* Department of Mathematics and Computer Science, University of Marburg. Marburg, Germany. (collaborator)

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