

Tomáš Jelínek

 Desperadus |  tomasjelinek.eu |  tomgolf.jelinek@gmail.com |  +420 730 693 314

SUMMARY

I am currently a bioinformatics student at Charles University in Prague. My interest is in machine learning applications in biology, such as protein structure prediction, molecular docking, artificial protein design, and more. I am also interested in seq2seq models, such as Transformers, Mamba, and more.

I have worked at 2nd Medical Faculty in Focal Cortical Dysplasia research, then in research of cellular development pathways in CLIP Motol. I have also done some coding for private customers, which included web scraping, data analysis, discord bots, Linux server administration, and more. Currently, I am working with Prof. Mgr. Pavel Stopka, Ph.D. on proteomics research.

WORK EXPERIENCE

2nd Faculty of Medicine - FCD and Glioblastoma Research Jun 2020 - Sep 2021

Help in the laboratory during my high school studies.

- Working with a two-photon microscope and scripting in Matlab (for tumor growth analysis).
- Creation of lab equipment for the mice EEG monitoring room using soldering, 3D printing, and CAD modeling.
- Standard wet lab work.

CLIP - Inference of Developmental Pathways from scRNA Data Jun 2022 - March 2023

The aim was to develop an R package that would, from scRNA data, infer cellular developmental pathways using discrete differential geometry with Hodge theory and algebraic topology.

Spike Sneakers s.r.o - Coding, Linux administration Sep 2022 - Jan 2024

- System for sneakers sales and consignments.
- Invoice generation, payment handling, price scraping, and more.
- Used technologies: Python, Discord API + webhooks, docker, MySQL, Linux administration, Fakturoid, OCI, and more.

EDUCATION

2021 - 2024 Bachelor's Degree in Bioinformatics at **Charles University** (Study average: 1.24)

2024 - present Master's Degree in Bioinformatics at **Charles University**

LANGUAGES

Czech Native
English Advanced (C1 level - CAE Cambridge Certificate)
German Upper intermediate (B2 level - DSD II Certificate)
Latin Basic (A2 level)

SKILLS

Coding Skills Python, C#, C++, R
Other IT skills Linux (with bash scripting), docker/podman, make, pandas, numpy, sklearn, PyTorch, Keras, TensorFlow, mlflow, Discord API, OCI, fakturoid, Shopify API