

## Education

- Present **École polytechnique fédérale de Lausanne**,  
*Data Science*, Master of Science.  
GPA – 5.5 / 6
- 2020–2023 **IT University of Copenhagen**,  
*Data Science*, Bachelor of Science.  
GPA – 11.9/12 (highest in the class)
- 2014–2019 **Gymnasium J. K. Tyla**,  
High School.  
GPA – 1.1 (top 1% of the class)

## Experience

- 2024 **Machine Learning Researcher**, VEO, Copenhagen.  
◦ Working on improving event detection in football videos using state-of-the-art deep learning models. Presented several research papers from the Computer Vision space as part of the team's bi-weekly reading group.
- 2024 **Student Researcher**, EPFL, Lausanne.  
◦ I have conducted semester research project in Image and Visual Representation Lab under the supervision of Ehsan Pajouheshgar. The project focused on developing a hyper-network for generating Neural Cellular Automata (NCA) to synthesize textures. The outcomes and analyses were comprehensively documented in a final [report](#). Received 5.75/6 for the project.
- 2023 **Data Scientist**, SHARPGRID, Prague / Copenhagen.  
◦ Created an MVP product to help companies like RedBull and Heineken understand their market position using detailed transaction data. The project required use of Py-Spark due to the large dataset size.
- 2021–2023 **Teaching Assistant**, IT UNIVERSITY OF COPENHAGEN, Copenhagen.  
◦ Most relevant courses: NLP and Deep Learning (2023), Machine Learning (2022), Database Systems (2022), Linear Algebra & Optimization (2021, 2022), Applied Statistics (2022). Furthermore, prepared extensive [course materials](#) for Machine Learning and Linear Algebra & Optimization as a personal initiative.
- 2020–2021 **Data Engineer**, KAYA VC, Prague / Copenhagen.  
◦ Developed a data processing pipeline for extracting company information from various internet sources (e.g., blogs, public databases). Further, created internal applications to automate fund management tasks using Google Cloud Platform, Python, and JavaScript.

## Skills

- Proficiency English (Professional), Czech (Native)
- Languages Python, SQL, TypeScript, Java
- Stack Lightning, PyTorch, Numpy, Pandas, Matplotlib, Hydra, Gradio, HF, W&B

## Selected Projects

- 2024 **A Data-Centric Approach to Fine-Tuning Phi3-mini**, [Phi-3](#), [HuggingFace](#), [Unsloth](#).  
◦ Final project for the *Modern Natural Language Processing* course focusing on aligning and finetuning the Phi3-mini model on the student created dataset. The outcomes and analyses were comprehensively documented in a final [report](#). Received 5.75/6 from the course where the project was one of the main components.
- 2023 **Multilingual Website Classification**, [PyTorch](#), [WandB](#), [Hydra](#), [GPT](#), [Homepage2vec](#), [XLM-R](#).  
◦ A final project for the Machine Learning course, focusing on improving the existing state-of-the-art multilingual website classification model using GPT labeled dataset. The outcomes and analyses were comprehensively documented in a [report](#). In addition, created a demo [website](#) for the model. Received 6/6 for the project.

- 2023 **Bachelor Thesis**, *Neural Cellular Automata, PyTorch, Quality Diversity Optimization*.
- Explored the interactive application of Neural Cellular Automata (NCA) for game level generation. Introduced interactivity to NCA, allowing designers to fix specific tiles in the generated game levels. Created a [demo](#) for experimenting with the interactive NCA. Received 12/12 for the thesis which can be accessed [here](#).

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## Voluntary Work

- 2023-2024 **AI Student Organization**, *Deep Learning, NLP, Computer Vision, Multi-Modal Models, LLM*.
- Co-founded AITU, a student organization dedicated to staying current with advancements in artificial intelligence. The group meets weekly to review and discuss state-of-the-art research papers in the field. I have written several blog posts summarising the papers we have read. I designed the [curriculum](#) for the fall 2024 semester.
- 2022–2023 **Bi-Liquid Rocket**, *DanSTAR*.
- Contributed to DanSTAR, a student-run organization focused on constructing a reusable bi-liquid rocket. Developed a flash storage driver and integrated it with the third-party file system, FatFs.
- 2021–2023 **Student Mentor**, *ITU*.
- Mentored first-year students to ease their high school-to-university transition.

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## Awards & Scholarships

- 2022 **Blue Dot Award**, *Danish Technical University*.
- Award acknowledging contributions to the DanSTAR bi-liquid rocket project, Fornax.
- 2019 **University Scholarship**, *Kellner Family Foundation*.
- I was selected among other top high school students wanting to study abroad to receive the scholarship. However due to financial constraints, I was unable to accept the offer which would not cover the full cost of studies in London (I was accepted at UCL to study CS).
- 2019 **Excellent Academic Results**, *Gymnasium J. K. Tyla*.
- Award for outstanding high school academic performance.