Taha ZAKARIYA

DATA SCIENCE MASTER STUDENT

CONTACT

Chemin des Triaudes 7

+41 78 633 46 03

taha.zakariya@epfl.ch

linkedin.com/in/tahazakariya/

Skills

- **Python**, **Java**, SQL, Git, Scala, Latex, C.
- Eclipse, VSC, PyCharm, DataGrip, VMware, Google Colab, Microsoft Office.

- **Teamwork** with a good sense of leadership, conflict management and active listening.
- **Autodidact** with strong adaptability, reliability and organisation.
- A good sense of **problem-solving** and decision-making.

Languages

English : Fluent

French : Bilingual

Arabic : Native

Main courses

Machine learning, Applied Data Analysis, Deep learning, Algorithms, Stochastic models, Probabilities and statistics, Introduction to database systems, Functional programming

PROFILE

I am a master student at EPFL in the field of Data Science, with a keen interest in algorithmic and machine learning. I'm ambitious and eager to learn, so I'm looking for an internship to put my acquired skills into application within a dynamic environment.

I do a lot of sports, web 3.0 investing and I like to travel and discover new places on my free time.

EXPERIENCE

Research student assistant - Computer Vision Lab at EPFL

02/2022 - now

- Tackled the problem of connectivity when segmenting linear structures in 3D microscopy images using **Pytorch**.
- Processed neurons data and tested the effect of the segmentation task on neurons detection on Vaa3d using a U-net network.
- Implemented other state-of-the-art networks (ResUnet, Ce-Net…) using popular papers to assess their efficiency on our segmenting task.

Analysis and physics student teaching assistant - EPFL

09/2020 - 01/2022

- Assisted 100+ first year students to understand theoretical concepts.

Research student assistant - Xplore (with VITA Lab at EPFL)

02/2021 - 07/2021

- Tackled a new aspect of the stereo odometry challenge with 360° cameras, using convolutional neural networks in order to determine the position of the rover.
- Processed our dataset to match stereo camera images with LiDar output using **Numpy** and **OpenCV**.

EDUCATION

Master of **Data Science** - EPFL, Switzerland

09/2021 - now

- Minor in Management, Technologies and Entrepreneurship

BSc in **Communication Systems** - EPFL, Switzerland

2018 - 2021

Projects

- Applied data analysis projects:
  1. Investigating the correlation between the news and Bitcoin's historical data using a 178 million quotes data set (**Pandas, NLP**)
  2. Regression analysis and Supervised learning on observational studies (**Sklearn, Statsmodel**)
- Machine learning projects:
  1. Predicting the presence of Higgs boson from CERN data using binary classification (Results on AICrowd)
  2. Registration/alignment of clinical ophthalmic imaging data with Jules-Gonin Hospital (**Tensorflow**)
  3. Implemented a Noise2Noise model which is an image denoising network trained without a clean reference image (**Pytorch**).
  4. Implemented Pytorch modules from scratch.
- Database Project: Building ER and relational schemas, cleaning and loading into DataGrip, realizing multiple complex queries (**SQL**).