





# Taha ZAKARIYA

## DATA SCIENCE MASTER STUDENT AT EPFL

### CONTACT

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### SKILLS

- Programming languages:
  - Proficient: Python, Latex.
  - Intermediate: Java, SQL, Git, Scala.
- Software: Jupyter, Eclipse, VSC, PyCharm, DataGrip, VMware, Google Colab, Microsoft Office.
- Soft skills:
  - Teamwork with a good sense of leadership.
  - Autodidact with strong adaptability, reliability and eager to learn.
  - A good sense of problem-solving and decision-making.

### LANGUAGES

**English** : Fluent

**French** : Bilingual

**Arabic** : Native

### MAIN COURSES

Applied Data Analysis, Machine learning, Deep learning, Statistics for data science, Algorithms, Introduction to NLP, Stochastic models, Introduction to database systems, Functional programming

### PROFILE

I am a Data Science master's student at EPFL, currently finishing an internship at Nestle R&D. I'm seeking a master thesis project in the ML/AI field starting from September/October.

### EXPERIENCE

**Data Science Intern** - Nestle Research and Development  
Switzerland, 02/2023 - now

- Applying advanced data analytics (statistics, ML) in identifying environmental conditions and microbiota differences/signatures that associate with multiple events and phenomena of interest.
- Improved previous predictions through the implementation of new data processing techniques and predicting pipeline.
- Developed a website to facilitate the data analysis of microbiome datasets and perform AI predictions for microbiologists with non-technical background.

**Analysis and physics student teaching assistant** - EPFL  
Switzerland, 09/2020 - 12/2022

- Assisted 100+ first year students to understand theoretical concepts of maths and physics.

**Research student assistant** - Computer Vision Lab at EPFL  
Switzerland, 02/2022 - 06/2022

- Processed 3D 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.

### EDUCATION

**Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland**  
2021 - now

- Master's in Data Science with a minor in Management, Technologies and Entrepreneurship

**Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland**  
2018 - 2021

- BSc in Communication Systems

### PROJECTS

#### • Research project:

- Stereo odometry challenge with 360° cameras, using convolutional neural networks to determine the position of the rover (Pytorch, OpenCV).

#### • Applied data analysis projects:

- Investigating the correlation between the news and Bitcoin's historical data using a 178 million quotes data set (Pandas, NLP)

#### • Machine learning projects:

- Predicting the context that fits a question (SQuAD dataset) using multiple NLP techniques (Transformers).
- Implemented a Noise2Noise model which is an image de-noising network trained without a clean reference image (Pytorch).