

# Joseph ASSAKER

Computer Vision Engineer



[LinkedIn](#)



[Youtube Channel](#)



[Portfolio](#)

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## EDUCATION

**2021 → May 2025 - Computer Vision PhD — Rouen University, France**

**PhD Title:** Representation Learning For Pattern Spotting And Pattern Discovery In Historical Documents. [ICPR 2024 Paper](#).

- A plethora of vision sub-domains are involved in this project such as **transfer learning**, **one-shot object detection**, **transformer-based architectures**, **unsupervised learning** and **synthetic data generation**.
- Built an extensive, flexible and parameterizable codebase in **Python/PyTorch** ranging from model architecture and training to synthetic data generation.
- Taught a total of **150+ hours** across 8 programming, machine learning and web development courses delivered for students of L1 all the way to M2.

**2020 - Master in Computer Sciences — Lebanese University, Lebanon**

**2019 - Advanced Python Course — Hamburg University, Germany**

- After **winning a Python competition**, I was granted the opportunity to attend Bernd Klein's Advanced Python course in Germany.

## PROFESSIONAL EXPERIENCE

**2020 → 2021 - Zaka — Computer Vision Engineer | Full-Time, Lebanon**

- Developed **more than 10** computer vision products, most of which were **object detection** models such as facemask detection and clothes type and color detection. From **data collection and labeling** all the way to the **model training** and optimization, taking into account both **precision and computational optimization**.
- Mentored **20+ interns**, managing their tasks and progress and helping them achieve their goals.
- Thoroughly followed **agile methodology**, consisting of daily stand-up and weekly sprint planning meetings.

**2019 → 2020 - Coder-Maker Club — Entrepreneurship | Part-Time, Lebanon**

- Participated in the **creation and management** of an educational social enterprise; the Coder-Maker Club.
- Led the club's Beirut headquarters. This included the role of **Lead Trainer**, the handling of our students' parents communication, the students' progress and logistics reporting, and many more event creation tasks.

## PERSONAL PROJECTS

**2023 → Present - Python Teaching YouTube Channel — [Joseph Loves Python](#)**

- Created and published 60+ educational videos, gaining over **1,100 subscribers** and **70,000 total views**.

**2022 - Artificial Intelligence Educator — Zaka | Freelance, Remote**

- Taught **4 AI courses** to university students from various countries from the MENA and Asia regions. Course attendees ranged from **15 to 60+ students**, with an average length of 15 hours.
- Mentored a total of **6 teams** for a period of a month in preparation for their capstone projects.

**2021 - Twitter Sentiment Analysis - Classical Approach VS Deep Learning — [GitHub Link](#)**

- Utilized data collected from Twitter (X) to train models able to predict positive/negative **intent in text**.

**2019 - Improved A\* Algorithm Via The Use Of K-means Clustering — [GitHub Link](#)**

- Finding the **shortest/fastest path** between two nodes on a traffic congestion map.

## SKILLS

**Programming:** Python 3 (Tensorflow/Keras, PyTorch, Pandas, Numpy, Matplotlib, Plotly, Beautifulsoup, etc.), Git, AWS (EC2, S3, Cloud9), Linux, HTML/CSS/JS, NVIDIA Transfer Learning Toolkit (TLT), Java, C/C++, SQL, C#.

**Others:** Writing/Documenting Clean Code, Oral/Written Communication, Academic Research, Agile Methodologies.

**Interest Areas:** Software Engineering, Deep Learning, Computer Vision, Data Visualization, Algorithmics, Teaching.

## LANGUAGES

- Arabic — Native
- English — Proficient
  - Academic IELTS - Band 8.5
- French — Bilingual

## AWARDS

**2020 - Google Hash Code Competition**

1st Place in Lebanon.

**2019 - Bodenseo Python Competition**

1st Place Award.