## **JOE NAJM**

#### **Electrical and Electronics Engineering Master's student**



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### **EDUCATION**

M.Sc. in Electrical and Electronics Engineering École Polytechnique Fédérale de Lausanne (EPFL) - Switzerland

Sept 2021 - Ongoing

B.Sc. in Electrical and Electronics Engineering École Polytechnique Fédérale de Lausanne (EPFL) - Switzerland

**Sept 2018 - June 2021** 

French Baccalaureate with science specialization Lycée Bonaparte Doha

**J**une 2018

#### COURSES TAKEN

Computer Vision | Deep Learning | Applied Data Analysis Image Analysis and Pattern Recognition Intelligent Agents Modern NLP Network Machine Learning Adaptation & Learning **Convex Optimisation** Signal Processing **Probability and Statistics** Fundamentals of Machine Learning Automatic speech processing **Control Systems** Electro-acoustic **Power Electronics** 

## **PROJECTS**

## Android Applications developer

#### Independent

October 2023 - Ongoing

Zurich

 Developing android applications using Kotlin and Kotlin Jetpack Compose in my free time. Most notables apps include a gym workout tracker and a calendar reminder. All apps can be found open-source on my github.

## Driverless Division Perception sub-team Leader Lausanne Racing Team, EPFL

**August 2022 - August 2023** 

Lausanne

• In charge of the perception of the EPFL Racing team self driving car. Led a team that developed real-time object detection and distance estimation algorithms that were directly used on the autonomous car using a monocular camera and a Lidar.

## **STRENGTHS**

Hard-working | Eye for detail Motivator & Leader

Teamwork & communication

Python Computer Vision Data analytics Pytorch Pytorch Lightning Deep Learning Git/Github Kotlin Signal Processing Scrum meetings Matlab

## LANGUAGES

English	• • • •
French	• • • • •
Arabic	• • • • •
Spanish	• • • • •
German	• • • • •

## **EXPERIENCE**

Data Analysis Intern

Sauber - Alfa Romeo F1 Team / Stake F1 Team

**=** 09/2023 - Ongoing **●** Hinwil

Part Time Research assistant MIAL Lab (CHUV)

**1**0/2022 - 05/23

Lausanne

Summer internship

MIAL Lab (CHUV)

**=** 07/2022 - 09/2022 ■ Lausanne

## Student assistant

**EPFL** 

- Numerical analysis assistant
- Mentor for  $1^{st}$  year students

#### **Driverless Division**

#### Lausanne Racing Team, EPFL

- **i** January 2022 June 2022
- Lausanne
- Developed an object detection algorithm using a 3D Lidar and a monocular camera.

#### **Driverless Division**

#### Lausanne Racing Team, EPFL

- **Sept 2021 Dec 2021**
- Lausanne
- Trained a perception deep learning model for the LRT driverless division using a monocular camera for object detection and distance estimation.

## **Bachelor Project**

### Signal Processing Lab 5, EPFL

- Feb 2021 June 2021
- Lausanne
- Trained an image recognition algorithm to detect varroa mites on a bee hive image based on YOLOv5.

## **EPFL Racing Team**

#### Perception sub-team leader

**i** 08/2022 - 08/2023 **Q** Lausanne

# EPFL Racing Team Computer Vision Engineer

**=** 09/2021 − 08/2022 **Q** Lausanne

# EXTRA CURRICULAR ACTIVITIES

Coaching SEL EPFL (logistics manager)
 Sept 2019- June 2020

## **PERSONAL DETAILS**

- Age: 23
- Not married
- No kids