# KEERAN PAHEERATHAN

# SOFTWARE ENGINEER

+33642088021 | keeran.paheerathan@gmail.com | GitHub | LinkedIn | Portfolio

#### **SKILLS**

- Python (Jupyter, SciPy, NumPy, Matplotlib, scikit-learn)
- Tensorflow / Pytorch
- Neural Networks (CNN / RNN/ LSTM)
- Image Processing
- Point Cloud Processing

- ML Algorithms
- High and Low level Computer Vision
- C/C++
- JavaScript | NodeJS | Express
- Git | Github

## PROFESSIONAL EXPERIENCE

**SOFTWARE ENGINEERING INTERN** | FEBRUARY 2022 – JULY 2022

**INRAE** | TOULOUSE, FRANCE

- Registered the point clouds from the three 2D LiDARs of the Phénomobile | The Phénomobile is a robot used to study plants in a field
- Developed a point cloud segmentation method using Deep Learning to isolate plant organs in the case of sunflowers with an mIoU of 74% and a precision of 88%
- Resulted in a new automated way to measure the diameters of sunflower capitula

# **ASSISTANT SOFTWARE ENGINEERING INTERN** | SEPTEMBER 2020 – FEBRUARY 2021 **H3DYNAMICS** | SINGAPORE (REMOTE)

- Led design and implementation of an automatic masking program for windows in buildings permitting the company to use their software in residential buildings
- Implemented the automation of raw datasets cleaning to simplify their use in future software
- Implemented Backend REST APIs in JavaScript to simplify the use of software made by the company

#### **PROJECTS**

CAR MAPPING
POINTCLOUD ANNOTATION TOOL
GENERATIVE ART

MAP CREATION USING SENSORS ON A CAR A TOOL TO ANNOTATE POINTCLOUDS AUTOMATED ART CREATION USING PYTHON

# **EDUCATION**

# MASTER'S IN COMPUTER SCIENCE | SEPTEMBER 2019 - SEPTEMBER 2022

UNIVERSITÉ DE TECHNOLOGIE DE BELFORT-MONTBÉLIARD

- Algorithm and programming in C
- OOP in C++ and Java
- Computer Generated Image
- Classic Computer Vision techniques
- Deep Learning for Computer Vision
- Mathematics for Image Processing

# **CPGE PTSI | SEPTEMBER 2017 – JUNE 2019**

LYCÉE LES EUCALYPTUS

Two-year undergraduate intensive course in mathematics and physics

#### **LANGUAGES**

French | Native Language

English | C1 (Proficient)

## PERSONAL INTERESTS

In my spare time I enjoy watching movies or animes, playing video games and I also love drawing.