

# KEERAN PAHEERATHAN

## Software Engineer

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## PROGRAMMING SKILLS

- Python | PyTorch | OpenCV
- NumPy | Pandas
- Java | SpringBoot
- JavaScript | NodeJS | Express
- Git | Github
- PostgreSQL | MySQL
- C++
- C
- HTML5 | CSS3

## 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**

MAP CREATION USING CAR SENSORS (CAMERA/LIDAR FROM THE KITTI DATASET)

**POINTCLOUD ANNOTATION TOOL**  
**GENERATIVE ART**

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)
- Tamil | Native Language