# Minh MAI

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## LANGUAGES & SKILLS

Vietnamese (Native), English (Fluent), French (Fluent) Languages

Knowledge Data Structures, Algorithms, OOP, Machine Learning (Deep Learning, Reinforcement

Learning), Computer Vision (2D/3D detection, Tracking, Classification, Segmentation,

Depth Estimation, 3D Reconstruction & Point Cloud (LiDAR))

Prog. Languages Python, C/C++, CUDA, SQL, Bash, HTML, CSS, JS

Pytorch, Keras/ TensorFlow, OpenCV, OpenCL, OpenGL, NumPy, SciPy, Pandas, Scikit-Frameworks

learn, Matplotlib, Flask, Qt

**Embedding** ROS, PCL, TensorRT, Raspberry pi 3, Nvidia Jetson tx2, AGX Xavier

vim, VS Code, git, Doxygen, LATEX Tools

#### **WORK EXPERIENCE**

Ph.D. Fellow IRIT @ & Cerema \*\*Cerema **Nov 2019 - Now** 

Achievements/ Tasks

Toulouse, France

- Focusing on LiDAR-based/ monocular-based 3DOD methods
- Keywords: 3D object detection, Tracking, Segmentation, LiDAR, Linux, pytorch

### **Applied Scientist part-time**

VinAI Research

may 2021 - Now

Achievements/ Tasks Hanoi, Vietnam

- Implementing & reproducing the SOTA LiDAR-based/monocular-based 3DOD on waymo, nuscenes datasets
- Training & evaluating on our own large-scale datasets
- Exporting & deploying the model on car products
- Keywords: 3D Object Detection, LiDAR, Linux, CUDA, pytorch, tensorRT, Embedded Systems

#### CEA List **Research Scientist Intern** Achievements/ Tasks

Feb - Aug 2019

Paris, France • Fine detection and recognition of large-scale products using the 3D sensor Realsense d435

- Targeted TensorRT optimization for embedded platforms Nvidia Jetson tx2, AGX Xavier private report
- Keywords: 2D Object Detection, Linux, pytorch, tensorRT, Embedded Systems

#### **Research Scientist Intern**

MIA 🗪

Apr - Jul 2018

Achievements/ Tasks

La Rochelle, France

- Reimplementing the SOTA 2DOD (YOLO v3) in tensorflow.
- Training & evaluating on our own datasets
- Exporting and deploying the model on Raspberry PI 3/ TurtleBot 3
- Keywords: 2D Object Detection, Linux, tensorflow, Embedded Systems

#### **EDUCATION**

Paul Sabatier University 

Subject 

Subject 

Paul Sabatier 

University 

Subject 

Subject **Toulouse, France** 



2019 - Now

• Ph.D. student in Computer Science

**Bourges, France** INSA CVL INSA 2014 - 2019

• Diplôme d'Ingénieur (Master's Degree)

#### **PUBLICATIONS**

#### **Journals**

[J-1] **Nguyen Anh Minh MAI**, Pierre Duthon, Louahdi Khoudour, Alain Crouzil, Sergio A. Velastin. "3D Object Detection with SLS-Fusion Network in Foggy Weather Conditions" - SENSORS, Special Issue "Advanced Computer Vision Techniques for Autonomous Driving" | [Pending minor revisions]

#### **Conferences**

- [C-2] Nguyen Anh Minh MAI, Pierre Duthon, Louahdi Khoudour, Alain Crouzil, Sergio A. Velastin.
   "Détection d'obstacles par vision et LiDAR par temps de brouillard pour lesvéhicules autonomes"
   La 18ème édition d'ORASIS, journées francophones des jeunes chercheurs en vision par ordinateur (ORASIS 2021) | [.pdf]
- [C-1] Nguyen Anh Minh MAI, Pierre Duthon, Louahdi Khoudour, Alain Crouzil, Sergio A. Velastin. "Sparse LiDAR and Stereo Fusion (SLS-Fusion) for Depth Estimation and 3D Object Detection" 11th International Conference on Pattern Recognition Systems (ICPRS 2021) | [.pdf]

### ADDITIONAL EXPERIENCE & AWARDS

#### **Certificates & Awards**

- 2021 Best Paper Award at the ICPRS 2021
- 2019 Ph.D. Scholarship for an outstanding candidate from the Cerema Research Center, France
- 2017 Deep learning specifications Certificates, Andrew Ng, Coursera
- 2016 Machine learning Certificates, Andrew Ng, Coursera
- 2014 2nd prize in mathematics at the provincial competition of the best high school students, Hue, Vietnam
- 2011 2nd prize in mathematics at the provincial competition of the best college students, Hue, Vietnam
- 2010 3rd prize in mathematics on pocket computer at the provincial competition of the best college students, Hue, Vietnam

### **Summer School**

- 2021 Reinforcement Learning Virtual School (RLVS 2021) hosted by the Artificial and Natural Intelligence Toulouse Institute (ANITI), Toulouse, France
- 2018 Document Analysis and Recognition at La Rochelle University, La Rochelle, France

#### **Teaching**

- 2021 Teaching assistant at Reinforcement Learning Virtual School (RLVS) hosted by the Artificial and Natural Intelligence Toulouse Institute (ANITI), Toulouse, France
- 2021 "Introduction to Programming and Algorithms in Python" at the Paul Sabatier University (UPS), Toulouse, France