

Nguyen Anh Minh MAI

AI Research Engineer · Computer Science Major · IRIT, CNRS

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About Me (🔗 skills - 📝 blog)

Knowledge: Machine Learning, Deep Learning, Image Processing, 3D Vision, Computer Vision (camera & LiDAR).

Programming Languages: Python, C++, C, CUDA, Bash, SQL, HTML, CSS, Javascript.

Frameworks: Pytorch, Keras, TensorFlow, OpenCV, Scikit-learn, NumPy, SciPy, Pandas, TensorRT, Qt, ROS, PCL, pytest.

Developer Tools: git, docker, SuperPOD, tmux, vim, VS Code, Doxygen, L^AT_EX.

Operating Systems: Unix (essentially), Windows.

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

Working Experiences

IRIT, CNRS & Cerema & EasyMile

Nov. 2019 – now

Research Engineer

Toulouse, France

- Focusing on LiDAR-based/ camera-based 3DOD methods, Data synthesis, Adverse weather conditions.
- Keywords: 3D object detection, Tracking, Segmentation, LiDAR, Linux, pytorch.

VinAI Research

May 2021 – Dec. 2021

Research Scientist

Vietnam

- Designing & implementing a LiDAR-based 3DOD on waymo challenge, nuscenes datasets. Benchmark on waymo 🔗
- Training & evaluating on our own large-scale datasets. Exporting & deploying the model on car products.
- Localization and mapping for navigation, Fast LOAM
- Keywords: 3D Object Detection, LiDAR, Linux, CUDA, pytorch, tensorRT, Embedded Systems., ADAS, SLAM.

CEA

Feb. 2019 – Aug. 2019

Research Engineer Intern

Paris-Saclay, 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.
- Keywords: 2D Object Detection, Linux, pytorch, tensorRT, Embedded Systems.

MIA

Apr. 2018 – Jul. 2018

Research Engineer Intern

La Rochelle, France

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

Education

Paul Sabatier Toulouse III

2019 – 2022

Ph.D. in Computer Vision

Toulouse, France

INSA Centre Val de Loire

2014 – 2019

M.Sc. (Diplôme d'Ingénieur) in Electrical Engineering

Bourges, France

Publications

"3D Object Detection with SLS-Fusion Network in Foggy Weather Conditions," SENSORS 2021

"Camera and LiDAR Analysis for 3D Object Detection in Foggy Weather," ICPRS 2022

"Multimodal Sensor Fusion for 3D Object Detection for Autonomous Driving," (poster) ITS European Congress 2022

"Sparse LiDAR and Stereo Fusion (SLS-Fusion) for Depth Estimation and 3D Object Detection," ICPRS 2021

"Détection d'Obstacles par Vision et LiDAR par Temps de Brouillard pour les Véhicules Autonomes," ORASIS 2021

Scholarship, Awards & Additional Experiences

Best paper honorable mention, ICPRS 2021 2021

PhD research scholarship, Cerema Research Center, France 2019

2nd prize in math (provincial competition of the best high school students), Hue, Vietnam 2014

2nd prize in math (provincial competition of the best college students), Hue, Vietnam 2011

3rd prize in math on pocket computer (provincial competition of the best college students), Hue, Vietnam 2010

Reviewer for AJAI (2022), ICPRS (2023) 2022

Teaching assistant for Reinforcement Learning Virtual School (RLVS), ANITI Toulouse, France 2021

Teaching: Introduction to Programming and Algorithms in Python, Paul Sabatier University (UPS), Toulouse, France 2021

Deep learning specifications Certificates & Machine learning Certificates, Andrew Ng, Coursera 2017