Maxime Noizet

Robotics engineer, Ph.D.



27 yo, driving license



Compiègne, France



noizetma.github.io



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Education —

2021 PhD in Robotics

2024 Université de Technologie de Compiègne, Sorbonne Universities Alliance (UTC)

2015 Computer Engineering UTC 2020 Specialization: Real-Time Systems and Embedded Computing

2019 Master's Degree in Automatic 2020 Control and Robotics of Intelligent Systems UTC

Courses —

Nov. Use of GNSS for Precision Po-2022 sitioning ENSG

OngoingProfessional Certificate: IBM AI Engineering Coursera

Languages -

French English

English German

Japanese



Skills —

Writing, Analysis, Autonomy, Adaptability, Collaboration, Project Management, Communication, Dissemination, Teaching, Popularization

References -

Dr. Philippe XU philippe.xu@ensta-paris.fr

Pr. Philippe BONNIFAIT philippe.bonnifait@hds.utc.fr

Dr. Jean-Benoist Léger jbleger@hds.utc.fr

Experience

Jan. 2025 CNRS Research Engineer Heudiasyc, CNRS
July 2025 Robotic Perception and Localization

July 2021 CNRS PhD Candidate in Robotics Heudiasyc, CNRS, UTC Dec. 2024 Multi-sensor perception with vector maps for autonomous vehicle local-

 Integration of lidars and cameras with georeferenced elements from vector maps for localization

* Multimodal automatic annotation for images and lidar data

* Adaptation of object detection algorithms

* Multi-sensor fusion for localization in complex environments

Nov. 2020 CNRS Research Engineer Heudiasyc, CNRS Localization integrity for autonomous vehicles, development of a 1D approximation module for data fusion

Feb. - Oct. 2020 Research Engineer Intern Renault Group, UTC

Long-term trajectory prediction for detected vehicles in complex urban

environments

Sept. 2018 Assistant Engineer Intern PiXYZ Software
Feb. 2019 Development of a visual programming feature for a CAD data optimiza-

Development of a visual programming feature for a CAD data optimiza-

tion software

Technical skills

General Robotics, Intelligent vehicles, real-time software development, embed-

ded systems, multi-sensor fusion, perception, machine learning, statis-

tics, numerical analysis, automatics

Languages C++, C, Python, LaTeX, R, Matlab, Assembly, UML, SQL

Technologies ROS, Git, Qt, Docker, Eigen, PCL, Numpy, Scipy, Pandas, Scikit-learn,

Scikit-image, OpenCV, Jupyter, Tensorflow, Cython

Projects

2021-2024 European Project: ERASMO (EUSPA) Heudiasyc, CNRS

* Role: Responsible for integration, data acquisition, demonstrations, and validation. Participation in dissemination activities.

 High-integrity and high-precision localization system for autonomous navigation based on a multi-constellation GNSS PPP-RTK receiver, cameras, and lidars

 Development of road feature detectors and a data association module using vector maps

* Partners: GMV, Renault Group, Septentrio, Artisense, Nextium

Spring 2021 National Project: Tornado (Ministry of Industry) Heudiasyc,

CNRS

Preparation for the demonstration: vehicle and infrastructure integration, scenario planning

Autumn 2019 European Project: ESCAPE (GSA) Heudiasyc, CNRS
Development of tools for localization integrity evaluation and visualiza-

tion for demonstration

Autumn 2019 Student Project: Teleoperation of Autonomous Vehicles UTC

Mission execution with real-time obstacle detection, obstacle avoid-

ance maneuvers proposed by the teleoperator

[Publications]

June 2023 Map-aided annotation for pole base detectionIV23, Anchorage,

USA

September Pole-based Vehicle Localization with Vector Maps: A Camera-2023 LiDAR Comparative Study ITSC23, Bilbao, Spain

October 2024 Automatic Image Annotation for Mapped Features Detection

IROS24, Abu Dabi, UAE