



XU Ruizheng

PhD student in Automation & Robotics

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[GitHub Profile](#)

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EDUCATION

- **University of Technology of Compiègne** 2024 - now
Thesis: Learning Framework for a Commuter Car
- **Sorbonne University** 2021 - 2023
Master in Computer Science, specializing in Multi-Agents, Robotics, Operational Research, Interaction, Decision High honour
-Scholarship: Passeport Tremplin
-Ranking: 13/43
- **University Paris-Saclay** 2020 - 2021
Bachelor's in Computer Science, specializing in Artificial Intelligence and Combinatorial Optimization Highest honour
-Ranking: 7/128
- **Institut Universitaire de Technologie du Limousin** 2018 - 2020
Diplôme Universitaire de Technologie (DUT) Computer Science High honour
-Ranking: 2/59

PROFESSIONAL EXPERIENCE

- **Renault Group** 2024/12 - now
Researcher Guyancourt
 - Driver Behavior Modeling, Analysis, Recognition
 - Human-like control for Autonomous Driving through learning methods
- **ISAE-SUPAERO, Department of Electronics, Optronics and Signal** 2023/03 - 2023/08
Final-year internship supervised by Damien VIVET and Christophe GRAND (ONERA) Toulouse
 - Implementation of a camera driver under ROS2 for integration on UGV/UAV
 - Deployment of a Deep Learning detection model and implementation of a real-time localization algorithm
 - Estimation of the traversability of the robot's environment by fusing segmented images and Lidar data
- **University Paris-Saclay** 2020/10 - 2021/08
Contractual agent Orsay
 - Support for students' psychological well-being during the pandemic and coordination with partner companies to ensure internship availability
 - Contribution to organizing university events, including preparations for welcoming the President of the Republic for a speech
- **Aquassay** 2020/06 - 2020/07
Final-year internship supervision by Mickaël Delanoë Limoges
 - Development of an embedded web interface in Python Flask for water consumption tracking
 - Processing, visualization, and storage of data acquired by the box sensors

PROJECTS

- **Eye land The Never ending Road** 2023
3D racing game under Unity
 - Integration of an eye tracker for controlling the car
 - Real-time adaptive game difficulty using Machine Learning based on data collected by the sensor
- **Visualization and Testing of an Autonomous Robot** 2022
Simulation and visualization application under Qt
 - Implementation of software for visualizing the trajectories of an autonomous robot in the Gazebo environment
 - Classification of the robot's trajectories in turns based on its speed
- **Hunt the Wumpus** 2022
Multi-agent system under the JADE framework
 - Modeling and implementation of a multi-agent system on an unknown complete graph
 - Implementation of communication protocols and strategies for resource collection and allocation under different constraints (presence of enemies, balanced sharing, etc.)

SKILLS AND INTERESTS

Languages: French (Bilingual), Chinese (Native), English (B2)

Programming Languages: Python, C++, C#, Java, SQL, HTML/CSS,

Frameworks: ROS2, Unity, Qt, Flask, pyTorch, Keras, openCV, numpy, matplotlib, pandas

Interests: Swimming, Basketball, Fitness