

JULIEN MÉRAND

Paris, FRANCE

Website: <https://julienmerand.github.io/portfolio/>

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PERSONAL STATEMENT

A committed PhD student in Robotics and AI at CEA-List and Université Paris-Saclay, specializing in learning-based manipulation and grasping. Possesses a strong academic foundation (MSc Robotics & Engineering Degree) coupled with a demonstrated capacity of delivering high-impact, automated solutions in industrial environments. Dedicated to leveraging Artificial Intelligence to resolve intricate challenges and advance the state-of-the-art in intelligent robotic systems.

LinkedIn: www.linkedin.com/in/julien-merand,

GitHub: <https://github.com/JulienMerand>

EDUCATION

PhD, Paris-Saclay University, Paris, FRANCE **January 2025 - January 2028**

Subject: *Vision-Based Policy Learning for Dexterous Multi-Fingered Robotic Manipulation*

Publications available at: <https://julienmerand.github.io/portfolio/>

MSc Robotics, Cranfield University, Cranfield, UK **October 2023 - September 2024**

Relevant course work: Fundamentals of Robotics, Robotics Control, Artificial Intelligence and Machine Learning for Robotics, Programming Methods for Robotics, Human-Robot Interaction, Machine Vision for Robotics, Autonomy in Robotic Systems, Psychology Ethics and Standards

Engineering School, IMT Nord Europe, Douai, FRANCE **September 2021 - September 2024**

Relevant course work: Project Management, Production Management, Automatics and Controls, Autonomous and Industrial Robotics, Automation, Development of Mobile Applications
Ex "Mines de Douai".

Preparatory class, High School Kleber, Strasbourg **September 2019 - July 2021**

Intensive courses: Math, Physics, Theoretical Computer Science

Scientific Baccalaureate, High School Louis-Vincent, Metz, FRANCE **Spring 2019**

CAREER HISTORY

CEA-List - Nano-Innov, Saclay **January 2025 - January 2028**

PhD, Vision Laboratory for Modeling and Localisation

Subject: *Vision-Based Policy Learning for Dexterous Multi-Fingered Robotic Manipulation*

Publications available at: <https://julienmerand.github.io/portfolio/>

CEA-List - Nano-Innov, Saclay **May 2024 - October 2024**

MSc Thesis – Research Intern at the Intelligent Robotic Systems Lab

Used vision and AI tools to recognize and locate everyday objects for grasping and manipulation tasks.

Integrated a two-armed exoskeleton with an eye-tracking device to provide active robotic assistance.

ArcelorMittal France - Florange's Digital Lab, Florange **April 2023 - July 2023**

Internship - Robotics and Quality Engineer

Developed an innovative and autonomous solution to improve the traceability and the inventories of steel coils. Saving nearly 7680 hours/year of hard work.

Wrote a benchmark and did a technology watch about mobile and quadruped robotics.

Opteamum - Sarreguemines
Internship - Robotics Engineer

May 2022 - August 2022

Designed and deployed an automated and collaborative palletizing cell using a Doosan H2017.
Programmed the robot Doosan H2017 to draw a photo portrait.

Grenoble Computer Research Laboratory, Grenoble

December 2015 - December 2015

One week internship to discover a research lab in Artificial Intelligence and Robotics.

CORE COMPETENCIES

Software: Python, Pytorch, C/C++ | Machine Learning, Deep Learning, AI | ROS, ROS2 |
Image Processing | Linux | Git | Matlab, Simulink | ABB RobotStudio, RoboDK, KUKA, UR.

Hardware: Robotics Hands (Allegro Hand, Shadow Hand) | Collaborative Robots (UR, Doosan) |
3D printing.

Soft Skills: Project Management | Communication.

LANGUAGES

French: Native | **English:** TOEIC 920 - TOEFL 93 - C1/C2 | **German:** B1

GROUP PROJECTS

Cranfield University

March 2024 - April 2024

Mobile robot navigation and path planning in dynamic indoor environments.

This project proposes a dynamic obstacle avoidance solution for mobile robots, leveraging machine learning for velocity estimation and cost mapping.

IMT Nord Europe

September 2021 - May 2022

Project Manager

Created and launched a Weather Balloon with 10 middle school students.
Leading a team of 4 students and with a budget of 500€; Improved management and teaching skills.

BR'EYE - "Entreprendre pour Apprendre" mini business

September 2018 - June 2019

Software Engineer Role

Wrote algorithms for a product for learning Braille in a fun way.

SCHOOL ASSOCIATIONS

Show Manager for the GALA of IMT Nord Europe.

Treasurer for IMTremplin (1300€ budget).

INTERESTS

Endurance Sports: Trail Running, Cycling.

Guitar: Winner of a musical springboard in 2022.

Judo: Black Belt since 2017.