

Etienne Chassaing

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Double-Degree Robotics consulting in AI, Robotics and ML.

EDUCATION

EPFL Robotics's Master, double degree with CentraleSupélec

Sep 2022 – Jul 2024

EPFL, Lausanne

GPA: 5.76/6.0, A+

Courses in: Control, Robotics Design, Machine Learning, Model Predictive Control, Mobile Robotics, Data Analysis. Semester projects: 1. Optimal control of a new UAV drone based on ROS (See publication below) 2. Design and control of a robotics platform for biology tasks in labs.

CentraleSupélec, "Diplôme d'ingénieur" and MS in Control Engineering

Sep 2017 – Aug 2023

University Paris-Saclay France

GPA: 4.05/4.33, A+

Courses in: Robotics, Control engineering, Theoretical and applied Mathematics, Mechanical Engineering, Electrical Engineering, Fluid Mechanics, Heat Transfer, Swarm robotics control. Classes préparatoires

MPSI-PSI* at Collège Stanislas.

ACADEMIC RESEARCH

Visiting Student Researcher at Stanford University

Sep 2021 – Feb 2022

Stanford Artificial Intelligence Lab, supervised by Prof J. Kenneth Salisbury, Stanford University

- Started a Human Robot Interaction project, whose goal is to perform natural handovers from robots to humans.
- Investigated how to detect secure grasps by measuring the stiffness of the recipient's grasp. See publication below.

EXPERIENCES

Master-Thesis intern on Physics-Informed Deep-Learning, Schindler Lab

Feb 2024 – Aug 2024

Schindler Lab, Lausanne, Switzerland

- Develop a cross-modality model to generate thermal models of buildings.
- Integrate physics priors to obtain a model consistent with heat transfer laws.

Deep-Reinforcement-Learning intern at Airbus Group

Mar 2022 – Jul 2022

Airbus Group, Le Plessis Robinson

- Developed multi-UAVs control strategies using Deep Reinforcement Learning (DRL).
- Designed a novel dedicated control structure based on existing state of the art.

Oral Examiner, Tutor and Teaching assistant

Jan 2020 – Jul 2024

Marcelin Berthelot Preparatory Class, Gustave Eiffel University, EPFL

- Organized weekly graded tutorial classes to prepare student's oral exam to apply for Grandes écoles ("Colleur").
- Teaching statistics, probabilities and basics Data-Science to a master student.
- Teaching Assistant at EPFL in "Legged Robots" (Master) and "Foundations of Artificial Intelligence" (Bachelor).

Consultant at Junior CentraleSupélec

Jan 2020 – Jul 2024

Junior CentraleSupélec

- Helped startups to design their robotics projects. Advised them on the design and control sides.
- Developed an autonomous camera system to monitor bacteria in micro cavities for Doctors Without Borders.

University project "Cubesat" sponsored by Thales Alenia Space

Sep 2019 – Jul 2021

CentraleSupélec Space Center "CS3"

- Designed a unique TestBed for ADCS (Attitude) control algorithms. This TestBed is now used as a tutorial workbench to predict Cubesat attitude-behavior in space. It was defended to CNES and Thales Alenia Space.

Personal projects, achievements and extra curriculum

- Performed the "GR20" trail, crossing Corsica from north to south.
- Built my own RepRap 3D printer in high school. Built a "BB8" spherical robot for CentraleSupélec entry exam.
- Former Vice President of Symposium CentraleSupélec, organizing conferences on campus (François Hollande...)

OTHER

Languages: French (Native), English (Fluent), German (Medium), numerous speaking-in-public experiences

Awards: 2nd prize of IEEEExCentraleSupélec innovation challenge, Research fellowship from the France-Stanford center

Publications: "Identifying Human Grasp Properties During Robot-to-Human Handovers", IEEE WHC 2023 "On identifying the non-linear dynamics of a hovercraft using an end-to-end deep learning approach", SYSID 2024

Patent: "Systems and Methods for Tactile Gesture Interpretation", 2022

Programming: Python, ROS basics, Git, basic C/C++, SQL, Fusion360, Matlab/Simulink, AzureML, Arduino, Latex