

AHMED ABDELMALEK

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"Simplicity is deceptively complicated."

First-year Master's student at EPFL with a genuine passion for my field.

EDUCATION

École polytechnique fédérale de Lausanne, MSc major in Data Science, minor in Cybersecurity Lausanne, CH	2024 - Today
École polytechnique fédérale de Lausanne, BSc in Communication Systems Lausanne, CH	2021 - 2024

EXPERIENCE

Swiss Solar Boat, Member of the Electronic Hardware Team Lausanne, CH	Sept 2023 - Feb 2024
<ul style="list-style-type: none">Developed the electronic interface that connects sensors to the boat's electronic system.Tested sensors before implementation using C++.	
UBCI, Engineer Intern Tunis, Tunisia	Feb 2021 - Feb 2021
<ul style="list-style-type: none">Internship in IT systems management at the UBCI group BNP Paribas.Learned various skills related to software development and project management.Understood the software development lifecycle and the various stages in creating and deploying software.Learned the tools and technologies used in the software development process.	

SKILLS

Programming Languages	Python, C/C++, Java, R, SQL, VHDL, Assembly, Scala, Solidity
Tools and Technologies	Git, LaTeX, ROS2, Arduino, Linux, OpenCV, VSCode

PROJECTS

Real-Time SLAM with Radar Ecole polytechnique fédérale de Lausanne	Feb 2024 - June 2024
<ul style="list-style-type: none">Developed a real-time SLAM system using ROS2 and TurtleBot4 IMU for odometry data.Captured radar data and executed real-time mapping to recover environments.Implemented noise reduction and object tracking, leveraging point cloud optimization.Tested and compared our system against a deep learning-based odometry method.	
Simulation and Source Detection of Infectious Processes on Networks Ecole polytechnique fédérale de Lausanne	Feb 2024 - June 2024
<ul style="list-style-type: none">Investigated infectious disease simulation using graph-based models.Analyzed differential equations to determine key epidemiological metrics.Incorporated stochastic elements into infection spread models to enhance their realism and reliability.	

CERTIFICATIONS

French Baccalaureate	highest honors
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Languages

English	Professional proficiency
French	Native proficiency
Arabic	Native proficiency

VOLUNTEERING

International Relations Specialist Interact: Rotary Sponsored Club	Jul 2019 - Jun 2020
<ul style="list-style-type: none">Focused on the strategy to strengthen relationships between our club and other international organizations, leading to collaborations and partnerships with new ones.Gained visibility on various motivating perspectives for future development through transnational associations.	
Secretary General Interact: Rotary Sponsored Club	Jul 2018 - Jun 2019
<ul style="list-style-type: none">Enhanced language skills and organizational abilities.Gathered and analyzed necessary information, selected appropriate media for information transmission, and provided detailed strategic reports.	