

David Eskoundos

Toulon – France

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Education

Laboratoire COSMER, Toulon, France

February 2025 - July 2025

Master's thesis intern, Excellent with honor

Control Strategy and a Human-Machine Interface for the Cooperative Control of an ROV-USV-Winch System.

Universitat Jaume I, Castellón, Spain

September 2024 - July 2025

M.S. EMJMD in Marine and Maritime Intelligent Robotics Master

Université de Toulon, Toulon, France

September 2023 - July 2024

M.S. EMJMD in Marine and Maritime Intelligent Robotics Master

German University in Cairo, Cairo, Egypt

September 2018 - July 2023

B.Sc. in Mechatronics and Robotics Engineering

◦ CGPA : 0.85 (A+) (German Scale)

◦ Cumulative Ranking : 2nd (among 208 students) with a full scholarship

Technical University of Munich, Munich, Germany

March 2022 - June 2022

Robotics and Control Research

◦ Bachelor's thesis about "Data-driven System Identification Based on Behavioral Systems Theory"

◦ GPA : 1.0 (A) (German Scale)

Experience

Siemens Inc., Egypt

July 2022 - August 2022

FACTORY AUTOMATION ENGINEER INTERN

◦ Programmed Siemens projects using PLC Ladder on SIMATIC S7-1500 and ET200 SP.

◦ Assigned to use the selection tool of Siemens in many projects like One Ninety DCP and Gascool plant.

German University in Cairo

August 2021 - September 2021

MECHATRONICS SYSTEM DESIGN INTERN AT MULTI-ROBOT SYSTEM LAB

◦ Built a conveyor from scratch (design, manufacture, programming, developing)

◦ Built a motor tester to evaluate the specifications of any motor

German University in Cairo

September 2019 - January 2021

JUNIOR TEACHING ASSISTANT

◦ Teaching and assisting students in "Introduction to Computer Programming" lab.

◦ Teaching and assisting students in the lab of "Data Structures and Algorithms" course.

Projects

- **Autonomous Search And Recovery (SAR) of Underwater Objects using BlueROV2.** [Github Repo.](#) 2024
- **Visual Servoing for BlueROV 2 - Tracking an Orange Buoy with Alpha-Beta Filter and PID Controller.** 2024
- **Eureka Project - Generating Reward Functions with LLM (Gemma) for RL Training in Isaac Gym.** 2024
- **Hand Mimicking Robot with Image Processing Techniques and Deep Learning** 2023
- **Detailed Robot Vacuum Cleaner Using Stateflow Simulink** 2023
- **"Follow-me" Robot for Warehouses Using Real-time Locating System (RTLS) with UML (stateflow)** 2022
- **Modeling and Control of 4-DOF Humanoid Right Arm for Assisting Humans with Tremor** 2022
- **Hand Control Altitude for RC Drone based on hand Gestures** 2022
- **Multi-UAV Target Assignment and Path Planning with 7 different optimization techniques** 2022

Technical Skills

Mechatronics skills:

◦ Matlab, Python, Simulink, C++ , UML(Stateflow), PLC, Git, Linux.

◦ ROS, Control Theory, SolidWorks, Embedded Systems, Arduino, CNC(sinumerik 840d), AutoCad, Proteus.

Machine learning Skills:

◦ Deep Learning, LLM, MLP, CNN, RNN, Logistic regression, Transfer Learning, TensorFlow, Pytorch, scikit-learn.

Language Skills:

◦ English (Fluent) - Arabic (Native) - French (intermediate) - German (intermediate).

Achievements

- **Awarded DAAD partially sponsored scholarship to study german in Ulm University in Germany.**
- **Ranked first in High School exam (Thanawya Amma) over all Egyptian Students (650k Students).**
- **Scout Leader for more than 5 years and a scout member for 15 years**