KEVIN AUBERT

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Master's student in Electrical Engineering specializing in control and autonomous systems. My experience includes working as a service engineer for advanced medical devices, conducting research in advanced robotics with a focus on multi-agent UAV control, and leading automotive competition projects such as Formula SAE and Shell Eco-Marathon. I am proficient in programming languages and technical tools, including Python, C++, MATLAB, Simulink, ROS2, and CAD software.

EDUCATION

MSc in Electrical Engineering- Emphasis: Systems and Controls — Aug. 2023 - Jul. 2025
University of New Mexico — New Mexico, USA — GPA: 4.0/ 4.0

Coursework: Machine Learning, Deep Learning, Autonomous Mobile Robots, Optimal Control, Non-linear Control.

BS in Mechatronics Engineering — Mar. 2019 – Jul. 2023
University of Engineering and Technology — Lima, Peru — Rank: 1st place — GPA: 3.81/ 4.0

Coursework: Robotics, Image Processing, Embedded Systems, Sensors and Actuators, Analysis of Signals and Systems.

Academic Excellence Award recipient for 2020, 2021, and 2022.

EXPERIENCE

Teaching Assistant — Jan. 2025 - Present
University of New Mexico — *New Mexico, USA*

· Supported laboratory sessions and student projects for the Feedback Control and Autonomous Mobile Robots courses, focusing on the control of quadrotors and autonomous robotic systems using Python, C++, ROS2, and MATLAB/Simulink.

Graduate Research Assistant — Feb. 2024 - Present
MARHES: Multi-Agent, Robotics, and Heterogeneous Systems Laboratory — *New Mexico, USA*

· Responsible for performing simulations, and developing hardware for advanced robot manipulation and multi-aerial robotics projects supported by Air Force Research Laboratory (AFRL) and National Science Foundation (NSF).
· Developed and implemented a cooperative algorithm to efficiently trace CO2 volcanic plumes using drone platforms, achieving more than 90% accuracy while reducing flight time by 50% compared to other algorithms as part of UNM VolCAN Project.
· Co-authored 4 papers in leading robotics conferences, contributing to advancements in multi-agent UAV control.

Service Engineer — Aug. 2022 - 2023
Medicaltech Peru — *Lima, Peru*

· Managed maintenance and technical service of 100+ FotoFinder and Sinclair medical devices across Peru.
· Coordinated client communications and oversaw logistics to ensure efficient service operations.
· Trained in Bulgaria in advanced medical equipment technology, covering pneumatic, hydraulic, and power electronics systems.

PROJECTS

Electrical Engineer — Aug. 2023 - Dec. 2023
Formula SAE Lobo Motorsports — *New Mexico, USA*

· Led the integration of the battery, motor, and electrical systems of the 2022 electric prototype.
· Coordinated the design, optimization, and testing of the powertrain system, ensuring efficiency and reliability.

Chief Engineer — Mar. 2022 - Aug. 2023
KON Team - Shell Eco-Marathon — *Lima, Peru*

· Led an interdisciplinary team of 30 engineers in the development of an electric vehicle prototype, resulting in a 40% reduction in vehicle weight and a 30% improvement in energy efficiency compared to the previous season.
· Raised over $50,000 in funding for the project through partnerships with sponsoring companies.
· Led the team to 1st world place in the Shell Eco-Marathon Virtual League 2022.

SKILLS

Programming Languages	Python, C\C++, R, Ladder.
Data Science and Machine Learning Tools	Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, PyTorch, SciPy.
Engineering Tools	MATLAB, Fluidsim, ROS2, Autodesk Inventor, Solidworks, Fusion 360, Git.
Simulation Tools	Simulink, Gazebo, MuJoCo.
Languages	English (fluent), Spanish (native), German (basic).

PUBLICATIONS

For a list of publications, check my Google Scholar page!