Kouider Chadli

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Education

University of Galway — Galway, Ireland
Ph.D. in Computer Science; — *Sep 2023 – Present*

University of Technology Malaysia(UTM) — Johor Bahru, Malaysia
M.Eng. Mechatronics and Automatic Control; ***GPA: 3.95/4.00*** — *Feb 2022 – Aug 2023*
Relevant coursework: Software Engineering, Artificial Intelligence and its applications, Deep learning, Computer Vision

Institute of Electrical and Electronic Engineering(IGEE ex-INELEC) — Boumerdès, Algeria
M.Sc. in Automation Engineering; ***GPA: 15.48/20.00*** — *Sep 2019 – Sep 2021*
B.Sc. in Electrical and Electronics Engineering; ***GPA: 15.96/20.00*** — *Sep 2016 – July 2019*

Skills

Programming Languages and Web Framework: C/C++, Java, Python, CUDA, SQL, MATLAB, VHDL, Arduino, Flask, Django

Machine Learning Libraries: Numpy, Panda, OpenCV, TensorFlow, keras, PyTorch, scikit-learn

Technologies and Tools: Git, Docker, Jenkins,Kubernetes, DVC, Azure ML

Software Engineering: Designing and implementing production services, full-stack applications, and tools and libraries across various disciplines.

AI Research and Design: Researching and designing artificial intelligence systems using machine learning models, such as neural networks, as well as probabilistic models and classic AI approaches.

Research Experience

University of Technology Malaysia(UTM) — Johor Bahru, Malaysia
Graduate Researcher — *Oct 2022 – July 2023*

- Performed groundbreaking research to create a real-time human detection system tailored for search and rescue missions through the integration of AI technology.
- Developed and trained the model from the ground up, attaining cutting-edge accuracy in identifying human targets, showcasing its viability for tangible applications and meaningful real-world outcomes.
- Formulated and implemented an innovative, lightweight Convolutional Neural Network (CNN) model specifically designed for human detection, optimized for efficient inferencing on a microcontroller embedded within a drone.
- Enhanced deployment efficiency by compressing the model using TensorFlow Lite and converting its data from floating points to 8 bits through post-training quantization, thereby ensuring optimal real-time performance.

Institute of Electrical and Electronic Engineering — Boumerdès, Algeria
Graduate Researcher — *Jan 2021 – Sep 2021*

- Conducted research to develop a motion planning algorithm for a quadrotor in cluttered environments.
- Devised a motion planning strategy by synergizing the Rapidly Exploring Random Tree (RRT) algorithm with the Direct Collocation (DC) method.
- Engineered a cutting-edge collision-free motion planning algorithm, leveraging funnel approximation through sampling and simulation-based falsification techniques, specifically tailored for quadrotors.
- Executed the implementation and thorough evaluation of the algorithm within a 6-Degree-of-Freedom (6-DOF) planar model using Matlab, thereby showcasing its practicality for real-world applications and underscoring its potential for significant real-world impact.

Hobbies

Learning new Languages, Reading Books, Coding, Traveling