<AMMAR ALHANNAFI>

I'm a software engineer with a great interest in machine learning and embedded systems. I'd like to work on the newly emerging field which combines machine learning and control systems i.e. machine learning control.

EXPERIENCE

Embedded Software Engineer
Inspiro, Arnhem
February 2022 - Present

Designing embedded software applications for microcontrollers and implementing machine learning applications that runs on SoC targets, such as Raspberry Pi and BeagleBone.

Situational awareness system for autonomous sailing
MARIN, Wageningen
February 2021 - July 2021

Designing multi object detection and tracking system to enhance autonomous sailing capabilities for unmanned survey vessels.

Situational awareness system for ground forces
Microflown Avisa, Arnhem
September 2019 - February 2020

Integrating 3D acoustic localization data into imaging system to detect and localize all sorts of audible threats.

Control panel for lighting system
InventDesign, Amsterdam
September 2018 - February 2019

Design a control panel to ease up the interface with DiGidot C4 processor.

EDUCATION

Master of Science - Systems & Control
Twente University, Enschede
September 2022 - December 2024
Graduated with 9 marks

Embedded System Engineering
HAN University of Applied Sciences, Arnhem
February 2017 - July 2021
Graduated with 9 marks

Petroleum Engineering
Seuz University, Egypt
September 2013 - June 2015

SKILLS & PROFICIENCIES

- Control Systems: Proficient in Simulink, robust control, optimal control, learning-based control.
- AI & Machine Learning: Skilled in computer vision (OpenCV), deep learning, reinforcement learning, tinyML and LLMs.
- Frameworks & Tools: Experience with Docker, Anaconda, Pytorch, and ROS for robotics development.
- Embedded Systems: firmware development, RTOS, sensor integration, and expertise in IoT applications, communication protocols (SPI, I2C, UART), debugging, unit testing
- Programming: Proficient in C, C++, Python, and MATLAB.

LANGUAGES

- English (C1)
- Dutch (B2 Certificate)
- Arabic (Native)

</SOFTWARE ENGINEER>