



CV

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About me

I am 25 years old from Greece and live together with my Danish girlfriend.

In my spare time, I enjoy playing chess, spearfishing, or playing computer games

Professional Skills

MSc degree in Autonomous Systems

Programming: Python (Pytorch), C++, SQL

Machine Learning & AI: TensorFlow, Hugging Face, Scikit-learn, DVC, MLflow

Robotics & Simulation: ROS, ROS2, Gazebo, AirSim, RViz, Embedded Systems, Arduino

DevOps & Deployment: Docker, Git, DVC

Software Skills

Machine Learning – Proficient

Python – Proficient

C++ – Intermediate

Embedded Systems – Intermediate

PAVLOS ADAMAKIS

I'm eager to learn new things and take great satisfaction in helping others grow.

I am an Autonomous Systems engineer who enjoys using hard work, curiosity, and teamwork to solve problems that have meaning. I am an excellent learner and enjoy discovering new things while initiating new ideas to accomplish shared goals, whether I work independently or as part of a team. In both cases my work is engaged, solution-oriented, and proactive. I actively look for feedback and personal development renewable in all ways big and small - personally and technically.

EDUCATION

MSc Eng. Autonomous Systems at Technical University of Denmark, DK
09/2022 - 03/2025

AI & Machine Learning (Python, ML, NN, Git)

I completed courses providing me with skills within deep learning, machine learning operations, and artificial intelligence. Through these courses I coded and managed extensive projects with the need of version control and data pipelines.

Autonomous Systems & Robotics (Control Systems, Path planning, Robotics)

I completed courses concerning Intelligent systems, Unmanned autonomous systems, Robotics, and Hands-on microcontroller programming, making me profound in both software and hardware.

Software Engineering for Autonomous Systems (C++, ROS, system architecture)

I worked with software frameworks for building dependable autonomous systems using ROS and C++. I learned how to design safe and reliable robot systems with a structured software architecture approach.

BSc Eng. Mechanical Engineering with Robotics at University of Sussex, UK
09/2018 - 07/2021

Core Engineering Foundations (Circuits, Mechanics, Programming)

Courses included electrical circuits, advanced mathematics, electromechanics, programming for engineers, and thermodynamics, providing a strong foundation in both theoretical and applied engineering principles.

Robotics & Automation Focus (Embedded Systems, Control, Mechatronics)

I specialized in robotics through modules in embedded systems, mechatronics, control theory, and system analysis. Projects included hands-on work with automation systems and real-time control applications.

EXPERIENCE

- **Assistant Mechanical Engineer at ELECTOR S.A., GR**
06/2020 – 09/2020

Waste Management, Global Company

Participated, by assisting the head of the mechanical engineering department in working the CAD system and following the process of waste and refuse collection and sorting, as well as composting, based on actuators and sensors. Worked with basic PLC programming for sensor-actuator integration. Collaborated with a team of engineers to develop a pilot project for sustainable waste management in urban areas. Gained hands-on experience with CAD tools, PLC programming, and sensor-actuator integration in an industrial setting. Learned how to apply engineering principles to real-world sustainability challenges through teamwork and system design.

- **Assistant(Internship) Kostis Hippocrates GR**
06/2019-03/2020
Independent Civil Engineer

ROS/ROS2– Intermediate
SQL- Beginner-Intermediate

Personal Skills

Proactive
Solution-oriented
Ambitious
Team player
Independent
Driven
Positive mindset
Can-do Attitude
Respectful
Fast Learner
Detail-oriented

Languages

English –Native proficiency
Greek– Native proficiency
Danish- Beginner (M1 course)

Participated, in monitoring the development process of the office's projects. Use software tools (ANSYS, SolidWorks) for drafting designs, simulations, or project management. The purpose of the internship was to gain experience in the organization and monitoring of an office and its projects as well and to understand the limits of the specific service market.

- **Part-Time Bartender at Bootleggers DK**

11/2022-03/2025

Developed strong communication and teamwork skills by engaging with diverse customers, while balancing part-time studies demonstrating dedication, adaptability, and a strong work ethic.

Univerity Projects:

2018 – 2025

Businness and Managing

- **Business project:**

Took an active role in group report. Created a timeline for the life cycle of an amusement park construction. Held role of **Project Manager**. Managed the group. Stayed on task by creating **Gantt charts** for project timelines, held daily voice calls for progress updates, and ensured team members completed progress on time. This experience supported the development of how to lead under pressures of time and scope of the project, bring clear communication across various areas of expertise, and become proficient at managing people and time. I learned to be more confident in coordinating tasks and turning ideas into action with a sense of structure.

Robotics Design & Simulation

- **Design of a Robotic Arm in SOLIDWORKS**

Using **SOLIDWORKS**, I designed a fully articulated robotic arm with detailed mechanical specifications and real-world constraints in mind. The project challenged me to apply mechanical engineering principles in material selection and kinematic design, while also learning how to produce technical drawings with tight tolerances. Through simulation-based stress testing and design-for-manufacture (**DFM**) considerations, I gained a deeper understanding of how mechanical components behave under real conditions and how to make designs ready for fabrication.

- **Autonomous QR-Hunter Robot (ROS/Gazebo)**

Group project, we built a fully autonomous robot in a simulated ROS and Gazebo environment that was designed to explore and decode five QR codes on a virtual map. I was using Python to build the system and implemented modular behaviour that included state switching, visual tracking using the **visp_auto_tracker**, and navigation using **move_base**. This project improved my skills in designing multi-component robotic systems, integrating vision planning and motion planning, debugging in a simulated environment, and greatly furthered my understanding in control flow and developed by ability to use ROS in practical applied situations.

Link for the github repo bit.ly/3GjwYsQ

Deep and Machine Learning

- **Detection of AI-Generated Text (MLOps Project)**

As part of a small team, I worked on building a text classification pipeline using **DistilBERT** to detect whether essays were written by students or generated by large language models (**LLMs**). We went through the full machine learning process from cleaning the dataset and fine-tuning the model, to testing its performance and preparing it for deployment. I used tools like **DVC** to version data and models, **MLflow** to track training runs, **Docker** for keeping environments consistent, and **Hugging Face's Trainer API** to simplify training and evaluation. This project helped me build confidence in applying transfer learning, working with **NLP** models, and

using MLOps tools to keep experiments organized and reproducible. It also taught me how to work better in a shared codebase and explain technical decisions clearly to teammates.

Link for the github repo: bit.ly/3G7CPI9

- **3D Human Pose Simulation with Gaussian Splatting**

I assisted in the reconstruction of a static 3D hospital room using video footage and the creation of dynamic human animations from **Mixamo** as part of a deep learning simulation. We constructed the point cloud with structure-from-motion through **COLMAP**, and then trained the **3D Gaussian Splatting** models to result in photorealistic renders. I took the photorealistic renders and animated blending into **Unity** for real-time visualization and to simulate lifelike human movement. This project also expanded my understanding of computer vision and 3D rendering and simulation, especially at the intersection with AI and animations in an immersive environment.

Link for the github repo bit.ly/3G2FwV3

Thesis Projects:

- **Bachelors**

09/2020-05/2021

Design and Development of an Autonomous Mapping Planar- Rover. Developed a motion planning and control system for a 6-wheeled rover using ROS and Arduino. The system enabled autonomous navigation in unknown environments while generating a map for research applications. The rover's data was visualized in SLAM, RViz, and Gazebo.

- **Masters**

09/2024-02/2025

Deep Reinforcement Learning in UAVs for Wind Turbine Blade Inspection.

Designed and implemented an autonomous drone inspection system for internal wind turbine blades using deep reinforcement learning. Used **Unreal Engine** and **Microsoft's AirSim** simulator to create high-fidelity 3D environments replicating the confined, dark interior of turbine blades. Developed RL agents in **Python** using **TensorFlow**, trained with algorithms such as **DQN**, **PPO**, and **REINFORCE** to navigate challenging inspection paths with minimal sensors. Compared models based on flight smoothness, path efficiency, and reward optimization. This work aims to reduce human risk and improve the cost-efficiency of turbine maintenance using AI-driven UAV systems.

Link for the github repo bit.ly/4i7nJt7