Ilias Papastratis

Machine/Deep Learning Engineer | Thessaloniki, Greece

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Skills

Programming Languages: Python, C++, Matlab, Java, SQL

Technologies: PyTorch, Tensorflow, Linux, OpenCV, ROS, Git, Docker

Engineering experience: Machine learning, Deep learning, Computer vision, MLOps

Work Experience

Machine/Deep Learning Researcher

Centre for Research and Technology Hellas – CERTH, Thessaloniki, Greece

10/2018 - PRESENT

- Developed and implemented deep learning applications to improve video and image recognition accuracy.
- Conducted comprehensive research on cutting-edge methods and technologies, authored papers published in scientific journals.
- Contributed to the development of 3 significant research projects:
    - Epikoinono: Transformed Greek sign language into written and spoken language in real-time using deep neural networks, increasing accessibility for the deaf community.
    - QCONPASS: Enhanced production line quality control with the design of autonomous vehicles equipped with advanced object recognition systems.
    - IProlepsis: Assisted in developing a novel personalized digital care ecosystem, utilizing multi-source data analysis to explain Psoriatic Arthritis inflammation.

Involved Technologies: Python, PyTorch, Tensorflow, OpenCV, Docker, Java, Linux

IT Coordinator

Research and Informatics Corps/ C Army Corps, Thessaloniki, Greece

03/2022 - 02/2023

- Administered and maintained a local network with Windows Server 2016, serving approximately 200 Windows 7/10 clients during mandatory army service.
- Managed Domain server, File server and Active Directory, ensuring seamless network operations.
- Installed and configured active equipment such as switches, routers, computers, resulting in improved network efficiency.

Intern

Aalto University, Helsinki, Finland

02/2018 – 08/2018

- Developed control and communication protocols in Wireless Networked Control Systems, optimizing system performance.

- Programming of control and navigation of a quadrotor aerial vehicle using an Ultra Wide Band positioning system, enhancing vehicle accuracy and stability. [Github]

Involved Technologies: C++, Python, ROS, Matlab

Education

MSc on Digital Media and Computational Intelligence
School of Informatics, Aristotle University of Thessaloniki, Thessaloniki, Greece
10/2020 – 02/2022

- GPA: 8.82 / 10
- Relevant Courses: Artificial Intelligence, Signal processing, Computer vision, Computational intelligence, Graphics, Bioinformatics, Machine Learning, Deep Learning, Natural Language Processing.
- Thesis: Intrinsically disordered protein prediction for genomes and metagenomes. The main goal of the thesis was to predict intrinsic disorder using machine and deep learning networks and employ prediction methods on metagenomic data.

Bachelor's & Master's Degree in Electrical Engineering and Computer Science
University of Patras, Patras, Greece
10/2012 – 07/2018

- Thesis: Designed an autonomous four-wheeled robot navigation system using Computer Vision techniques, improving robotic maneuverability and independence.

Projects

- Medical Zoo : Open-source medical image segmentation library of state of the art 3D deep neural networks in PyTorch
- COVIDNet : PyTorch implementation of COVIDNet model for COVID diagnosis from X-ray images
- SSL-vit-cnn : Ablation study on self-supervised training of CNNs and Vision Transformers (ViT)
- Computational Geometry and skeleton extraction of 3D object by Mesh Contraction, 1D Skeleton Extraction
- Design and Simulation of 4 DOF Robotic arm manipulator: Forward and Inverse Kinematics,Dynamics, Control and Path Planning using Matlab and Robotics Toolbox
- Differential wheeled robot car programming using Accelerometer, Gyroscope and Ultrasonic sensors. Tasks: Control, Path planning and Obstacle Avoidance