Sergios Karagiannakos

Software Engineer | Masters in Electrical and Computer Engineering | Artificial Intelligence Developer
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EXPERIENCE

Software Engineer at Eworx SA   **2018-2019**

- Architected and developed a **full-stack web app** for the European Training Foundation (ETF), to manipulate their data (add, edit, delete) from the frontend, build Reports and create interactive Visualizations.
- Built the core of a real-time **Recommendation Engine** using Natural Language processing and Machine Learning techniques for Experly, a travelling web application.
- Designed an in-house library for Source Code Analysis for different programming languages
- Implemented data science pipelines for tasks such as spell correction, language detection on different projects for European organizations such as CEDEFOP and Skills Panorama websites.

Freelancer Software Engineer   **2016-Today**

- Chill-Meet and Movie Date : Developed and published an **android app** with a NoSQL database and a server hosted in Google cloud as a backend. The app connects users via common interests in movies and tv shows and it organically grew to more than 500 users within the first two weeks.
- **Robot motion planning** - Designed a system for robot navigation on 2D space with C++ and computational geometry techniques, such as voronoi diagram and visibility graph.

EDUCATION

MEng Electrical and Computer Engineer (5 years degree with 300 ECTS)   **2012-2017**

Studied at University of Patras

GPA: Upper Second-Class Honors (7.23/10), GPA in Major: **8.12/10**

Coursework: Artificial intelligence, Pattern Recognition, Object Oriented Programming, Software engineerin, Robotics systems, Embedded systems, Computer Vision,Computational geometry and 3D apps, Parallel and Distributed Processing, Analog and Digital circuits, Computer and Network Security

PROJECTS

- Thesis: Development of **Computer Vision** framework based on deep learning and GPU programming. We designed a convolutional and full connected neural network library from scratch for object recognition in images. The training of the network and the computation of its output run on GPU, programmed with OpenCL and C++
- Implementation of **Deep Learning** models in Python with Tensorflow for research purpose. We design and train different models such as Convolutional Neural Networks, Recurrent, Autoencoders and Generative Adversarial Networks and visualize the results with Tableau. Also, we emphasized in Reinforcement learning algorithms such as Deep Q Networks and Policy Gradients.
- Programmed an **embedded board** for a 2 wheeled-robot. The robot was able to move to a straight line, follow a predefined path and avoid obstacles.
- Study of Kinematics, Dynamics, Position, Control and Simulation of **robotic arm** with MATLAB robotic toolbox

PUBLICATIONS

- Write technical articles around Artificial Intelligence - Data Science and publish them on big online publications such as Towards Data Science and Becoming Human.

SKILLS

- Machine and Deep Learning
- Computer Vision and Robotics
- Python, R, C/C++, JavaScript
- Embedded systems

- Data Modeling / Visualizations
- Parallel and GPU programming
- Web and Mobile Development
- Cloud Computing