Agelos Kratimenos

Kordeliou 2, Athens, Greece ⋄ (+30)6985752852 ⋄ ageloskrat@yahoo.gr

Senior Student at Computer Engineering | Machine Learning & Intelligent Systems

EDUCATION

National Technical University of Athens (NTUA), Greece *09/2015 - 06/2020*

BSc & MSc in Electrical and Computer Engineering (5-year joint degree; 300 ECTS)

- Expected GPA: 9.65/10 (top 5)
- Concentration: Signal, Control Systems and Robotics & Software Systems & Computing Systems
- Thesis on "Combined Analysis of Gestures, Body Pose and Facial Expressions with Applications in Sign Language and Action Recognition", supervised by professor Petros Maragos.

1st Senior High School of Vyronas, Athens *09/2012 - 06/2015*

- High School Diploma: 19.5/20 (Valedictorian)
- Nationwide University Entrance Examination score: 19,359/20,000 (top 1% nationwide)

PUBLICATIONS

[1] **Agelos Kratimenos**, Kleanthis Avramidis, Christos Garoufis, Athanasia Zlatintsi,and Petros Maragos, "Augmentation Methods on Monophonic Audio for Instrument Classification in Polyphonic Music", EUSIPCO 2020

[2] **Agelos Kratimenos**, Georgios Pavlakos and Petros Maragos, "3D Hands, Face and Body Extraction for Sign Language Recognition", SLRTP 2020, ECCV Workshop

[3] **Agelos Kratimenos**, "Proof of the Collatz Conjecture", arXiv:1911.02400, 2019 (not published)

PROFESSIONAL AND RESEARCH EXPERIENCE

Undergraduate Research Assistant, Control Systems Lab (Prof E.Papadopoulos), NTUA *08/2019 - Current*

- Currently working on creating a portable grapes-recognition system for identifying grapes in a vineyard in real-time for the HexaTerra Legged Robot; a modular stepping locomotion system.
- Working with Mask-RCNN and Yolo-v3 state-of-the-art models for Semantic Segmentation.

Undergraduate Research Assistant, CVSP Lab, NTUA *07/2019 - 02/2020*

- Worked on mixing methods to augment a monophonic dataset through tempo-sync, pitch-sync and genre mixing to efficiently classify instruments in polyphonic music with convolutional neural networks.
- Worked with Signal Processing and Machine Learning techniques and gained research and academic-writing skills.

Summer Robotics Project, Intelligent Robotics and Automation Laboratory, NTUA *05/2019 - 09/2019*

- Initialized from a project in Intelligent Robotic Systems course, in which we implemented Wall Following and Localization task for a sonar robot and tested in Gazebo Simulation with ROS.
- Extended the project by testing our algorithms under real conditions with a three-wheel DC-motor sonar robot.

Private Tutor, Athens *09/2015 - Current*

- Tutored 5 struggling students in Mathematics and Physics for Junior and Senior High School.
- Prepared one student in Mathematics for the Nationwide University Entrance Examination.
- Tutored one dyslectic student for 4 years increasing his performance.

HONORS AND AWARDS

€500 Award from Vyronas Mayor for succeeding in the Nationwide University Entrance Examination (first in region).

€800 Award from Eurobank for succeeding in the Nationwide University Entrance Examination (first in High School).

Financial Awards in years 2016 and 2017 from National University of Athens for achieving the highest grades in Mathematics courses in the freshman and sophomore year.

STRENGTHS AND SKILLS

Technical	Python, Computer Vision (CNN, LSTM, GANS, Semantic Segmentation, Mask-RCNN, Yolo-v3) TensorFlow/Keras, Paper Re-implementation, C/C++, LaTeX, Matlab
Extra-Curricular	Music Theory (Grade 6 ABRSM equivalent), Piano, Electric Guitar

LANGUAGES

English (fluent), **German** (intermediate), **Greek** (native)