

Resume

Maria Sdraka

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Date of birth 07/02/1991

EDUCATION

- | | |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| October 2008 - July 2016 | MSc in Electrical and Computer Engineering
National Technical University of Athens (NTUA) |
| November 2016 - October 2018
(interrupted) | PhD Candidate at the Artificial Intelligence and Learning Systems Laboratory (AILS) of the Electrical and Computer Engineering School
National Technical University of Athens (NTUA) |
| January 2021 - today | PhD Candidate at the Institute of Astronomy, Astrophysics, Space Applications and Remote Sensing (IAASARS)
National Observatory of Athens (NOA) |

FOREIGN LANGUAGES

- | | |
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| English | Certificate of Proficiency in English (CPE) of the University of Cambridge, level C2 |
| French | Diplôme d' Études en Langue Française (DELF) of the Centre International d' Études Pédagogiques, level B1 |
| Finnish | Certificate for completing a 4-year program at the Foreign Languages School (Didaskaleio) of UOA, level B2
Certificate for completing a series of courses (Finnish for Foreigners) at the Helsinki Summer University, level B2 |

PROFESSIONAL EXPERIENCE

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|------------------------------|------------------------------------------|
| October 2018 - December 2020 | Skroutz S.A.
Software Engineer |
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EXTRA INFO

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| Research programmes | <ul style="list-style-type: none">CORTEX: Core monitoring techniques and experimental validation and demonstration for improved reactor safety (2017 - 2018)
Website: http://cortex-h2020.eu/
A 4-year Horizon 2020 research project involving 20 European partners. The goal of the project is to develop innovative techniques and tools for the detection and localization of anomalies in nuclear reactors.DeepCube: Explainable AI pipelines for big Copernicus data (2021 - today)
Website: https://deepcube-h2020.eu/
A 3-year Horizon 2020 research project involving 9 European partners. The project aims to exploit the vast volume of Copernicus Earth Observation data for addressing problems of high environmental and societal impact. Novel explainable Deep Learning techniques will be combined with remote sensing and semantic data, and be deployed on an open and interoperable platform for distributed processing. |
| Seminars | <ul style="list-style-type: none">Web development (2010 - 2011) at NTUA.
Website: web-seminar.softlab.ntua.gr
(Syllabus: HTML, CSS, PHP, MySQL, Javascript, MVC architecture, security, jQuery and AJAX, etc)Web applications security (2014) at The Cube.
Website: security-class.gr |

(Syllabus: GPG, HTTPS, HSTS, BREACH, attacks at web applications, Tor, OTR, Bitcoin, disc encryption)

- [Introduction to Natural Language Processing \(2013\) at NTUA.](#)

Website: glotta.ntua.gr

(Syllabus: regular grammars/languages, finite automata, translators, syntactic analysis, Chomsky hierarchy, context-free languages, LDAs, ambiguity, Earley/CYK/CKY algorithms, context sensitive languages, introduction to Python's Natural Language Toolkit)

- [git and GitHub seminar \(2015\) at NTUA.](#)

Website: git-class.gr

(Syllabus: basic git usage, working locally with git, working remotely with git, collaboration through git/GitHub, advanced methods for git, workflows)

Conferences

- Conference of Biomedical Technology at UOA (organized by IEEE EMB Greece and SSHMS) on 25/4/2015.

Online Courses

- ["Networked Life"](#) (Michael Kearns, University of Pennsylvania) at Coursera.org
- ["Metadata: Organizing and Discovering Information"](#) (Dr. Jeffrey Pomerantz, University of North Carolina at Chapel Hill) at Coursera.org
- ["Machine Learning"](#) (Andrew Ng, Stanford University) at Coursera.org
- ["Convolutional Neural Networks"](#) (Andrew Ng, deeplearning.ai) at Coursera.org
- ["Deep Learning for Coders"](#) (part 1 and 2) at fast.ai
- ["Deep Learning Specialization"](#) (deeplearning.ai) at Coursera.org, audited
- ["AI for Medical Diagnosis"](#) (deeplearning.ai) at Coursera.org

Publications

- ["Putting Together Wavelet-based Scaleograms and Convolutional Neural Networks for Anomaly Detection in Nuclear Reactors"](#)
T. Tagaris, G. Ioannou, M. Sdraka, G. Alexandridis, and A. Stafylopatis, ICAAI 2019,
doi :<https://doi.org/10.1145/3369114.3369121>
- ["High-Resolution Class Activation Mapping"](#)
T. Tagaris, M. Sdraka and A. Stafylopatis, ICIP 2019,
doi: [10.1109/ICIP.2019.8803474](https://doi.org/10.1109/ICIP.2019.8803474)
- ["Generative Adversarial Networks as an Advanced Data Augmentation Technique for MRI Data"](#)
F. Konidaris, T. Tagaris, M. Sdraka, A. Stafylopatis, VISAPP 2019,
doi: [10.5220/0007363900480059](https://doi.org/10.5220/0007363900480059)
- ["The "Gene Cube": A Novel Approach to Three-Dimensional Clustering of Gene Expression Data"](#)
G. Lambrou, M. Sdraka, D. Koutsouris, Current Bioinformatics, vol. 14 issue 8, 2019
doi: [10.2174/1574893614666190116170406](https://doi.org/10.2174/1574893614666190116170406)

GitHub

- <https://github.com/paren8esis>