# DESPOINA TOUSKA

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#### RESEARCH INTERESTS

Software engineer with 2+ years of experience as a research associate in the machine learning and computer vision fields. Posses abilities to identify, understand and translate program requirements into sustainable, advanced technical solutions through Python, C, C++, JavaScript, and other programs for continuous improvement of AI technologies.

#### **EDUCATION**

#### Aristotle University of Thessaloniki

Thessaloniki, Greece

MSc in Electrical and Computer Engineering

October 2013 - April 2020

• Cumulative GPA: 8.35/10

• Relevant Coursework: Pattern Recognition, Parallel & Distributed Systems, Probabilities & Statistics, Data Structures, Structured Programming, Robotics, Database Systems

### Centre for Research and Technology Hellas (CERTH)

Thessaloniki, Greece

Collaboration for thesis completion

March 2018 - May 2018

• Thesis: Video Forgery Detection using Autoencoder and Recurrent Neural Networks (link)

• Grade: 10/10

#### **EXPERIENCE**

#### Centre for Research and Technology Hellas (CERTH)

Thessaloniki, Greece

Machine Learning Engineer and Research Associate

September 2020 - Present

- Contributed to scientific papers published on conferences and workshops.
- Developed and integrated machine learning system lifecycles utilizing cutting-edge open-source technologies for object detection, object tracking, and activity recognition.

# Instituto Superior de Engenharia do Porto (ISEP)

Porto, Portugal

Software Engineer and Research Intern

October 2019 - February 2020

- Collected and prepared video data of hand gestures.
- Developed a prototype web application to train and predict the translation of sign language videos to text.

# Centre for Research and Technology Hellas (CERTH)

Thessaloniki, Greece

Software Engineer and Research Intern

November 2018 - September 2019

- Contributed to the research for a multimedia forensics scientific paper.
- Developed and evaluated machine learning models for computer vision and natural language processing tasks.

#### INDICATIVE PUBLICATIONS

- D. Touska, K. Gkountakos, K. Ioannidis, T. Tsikrika, S. Vrochidis, I. Kompatsiaris. *Graph-Based Data Association in Multiple Object Tracking: A Survey.* MMM2023. 2023.
- Gkountakos, K., **Touska**, **D.**, Ioannidis, K., Tsikrika, T., Vrochidis, S., & Kompatsiaris, I. Spatio-temporal activity detection and recognition in untrimmed surveillance videos. ICMR. 2021.
- Gkountakos, K., Galanopoulos, D., **Touska, D.**, Ioannidis, K., Vrochidis, S., Mezaris, V., & Kompatsiaris, I. ITI-CERTH participation in ActEV and AVS Tracks of TRECVID 2021. TRECVID. 2021.
- Zampoglou, M., Markatopoulou, F., Mercier, G., **Touska, D.**, Apostolidis, E., Papadopoulos, S., ... & Kompatsiaris, I. Detecting tampered videos with multimedia forensics and deep learning. MMM2019. 2019.

### **SKILLS**

Languages: English (fluent, C2, IELTS: 7.5/9), Greek (native), German (beginner, A2).

**Programming Languages:** Python (advanced), C/C++ (intermediate), JavaScript (intermediate), HTML (intermediate), CSS (intermediate), SQL (beginner).

Libraries: PyTorch, Keras, Tensorflow, TensorFlow.js, OpenCV, NumPy, Pandas, Sci-Kit Learn.

**Production Tools:** Docker, Kafka, RabbitMQ, Git.