

DESPOINA TOUSKA

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PROFILE

Machine Learning Research Engineer with 3 years of expertise in researching and developing AI software, specializing in Computer Vision techniques. My skill set includes a solid foundation in software development using Python, C, C++, JavaScript, SQL, and other programming languages that I acquired through my studies and work experience. I am passionate about exploring AI solutions, in object detection, object tracking, activity recognition and other fields.

EDUCATION

Aristotle University of Thessaloniki

M.Eng in Electrical and Computer Engineering

Thessaloniki, Greece

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)

Collaboration for thesis completion

Thessaloniki, Greece

November 2018 - September 2019

- Thesis: Video Forgery Detection using Autoencoder and Recurrent Neural Networks ([link](#))
- Grade: 10/10

EXPERIENCE

Centre for Research and Technology Hellas (CERTH)

Machine Learning Research Engineer

Thessaloniki, Greece

September 2020 - Present

- Contributed to scientific papers focusing on object detection, object tracking, and activity recognition at conferences and workshops.
- Developed and integrated production-ready services utilizing cutting-edge open-source ML models along with tools (WebSocket API, Rest API, Apache Kafka, RabbitMQ) for service monetization and seamless integration with partner systems.

Instituto Superior de Engenharia do Porto (ISEP)

Software Developer Intern

Porto, Portugal

October 2019 - February 2020

- Collected hand gesture data in a video format using CNNs and a key-point format using the PoseNet model.
- Developed a prototype web application for data collection, training, and prediction of sign language translation to text using a web camera.

Centre for Research and Technology Hellas (CERTH)

Machine Learning Engineer Intern

Thessaloniki, Greece

March 2018 - May 2018

- Contributed to the research for a multimedia forensics scientific paper.
- Developed and evaluated ML 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++, JavaScript, HTML, CSS, SQL.

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

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