

Panagiotis P. Filntisis

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EDUCATION

National Technical University of Athens

Ph.D. in Electrical and Computer Engineering

Athens, Greece
Nov. 2015 – Sep. 2022 (*expected*)

- Advised by [Prof. Petros Maragos](#)
- **Areas:** Computer Vision, 3D Human Modeling, Emotion Recognition
- **Thesis:** Multimodal Deep Learning for Emotion Recognition and Expression Synthesis in Human-Robot Interaction

National Technical University of Athens

MEng in Electrical and Computer Engineering

Athens, Greece
Oct. 2007 – Oct. 2015

- Advised by [Prof. Petros Maragos](#)
- **Thesis:** AudioVisual Speech Synthesis with Hidden Markov Models

RESEARCH EXPERIENCE

Athena Research and Innovation Center

Research Assistant

Maroussi, Greece
Jan. 2016 – now

- Conducted research on EU Horizon 2020 projects: [BabyRobot \(2016-2018\)](#), [iMuSciCA \(2018-2019\)](#), [EASIER \(2021-\)](#) and Cosmote funded Voice Assistant (VA) (2020)
- Developed expressive talking photorealistic avatars using DNNs and Active Appearance Models (BabyRobot)
- Developed deep CNN architectures for emotion recognition from face and body expressions (BabyRobot, EASIER).
- Implemented Kinect-v2 controlled 3D human models using three.js for musical instrument playing (iMuSciCA).
- Implemented dialog management and integrated various audiovisual perception models under ROS (BabyRobot)
- Developed and deployed to production a voice assistant using speech recognition, synthesis, and dialog modeling. Integrated various ML web services via Docker containers and Kubernetes. (VA).

National Technical University of Athens

Research Assistant

Athens, Greece
Feb. 2019 – now

- Conducted research on EU funded Projects: [ePrevention \(2019-\)](#), [TeachBot \(2020-2021\)](#), [BonsAPPs 1st OC \(2022\)](#).
- Developed and optimized a gesture recognition system for embedded devices in driving conditions (BonsAPPs 1st OC).
- Developed statistical and machine learning methods for anomaly detection in wearable biosignals (ePrevention).
- Developed lightweight deep CNN emotion and incremental action recognition architectures (TeachBot).

ADDITIONAL WORK EXPERIENCE

feelbit

Co-founder, Full-Stack Engineer

Athens, Greece
Jun. 2015 – Oct. 2017

Developed front (Javascript, HTML, CSS) and back-end solutions (PHP, Ruby, Python, MySQL) for web applications.

Beenotes

Full-Stack Engineer

Athens, Greece
Mar. 2015 – Jan. 2016

Responsible for developing front-end (Ember.js) and back-end (Ruby) services for beekeeping management.

Freelance

Web Developer

Athens, Greece
Oct. 2014 – Oct. 2015

Designed and implemented front and back-end services for various websites using HTML/CSS.

Fountas Books

Translator

Athens, Greece
Oct. 2012 – Sep. 2014

Participated in translating Electrical Engineering and Computer Science textbooks from English to Greek.

AWARDS, CERTIFICATES, AND GRANTS

CVPR 2022 Best Paper Finalist with Neural Emotion Director	Jun. 2022
ECCV 2020 BEEU Workshop Challenge Winners	Aug. 2020
IROS 2019 Travel Grant Awardee	Oct. 2019
ICVSS 2018 Selected for participation & Reading Group Prize	Jul. 2018
IEEE SPS Travel Grant Awardee	Jun. 2017
10 Best StartUps in “Reditup” contest by “Papastratos” with Miyagi skill-trading platform	Jun. 2015
IEEE NTUA EMB Chapter Apps4meds’s Hackathon 1st Place with HouseIT differential diagnosis app	Nov. 2014


SKILLS

Prog. Languages	Python, C/C++/C#, HTML/CSS/Javascript, Bash, Ruby, Java
ML Libraries	PyTorch, Keras, Tensorflow
Software Tools	Nginx, Apache, MySQL, PostgreSQL, MongoDB, Docker, Kubernetes
Languages	Greek (native), English (fluent), French (intermediate)

ACADEMIC SERVICE

TA: Pattern Recognition and Machine Learning	Fall 2017-2019
TA: Digital Signal Processing	Spring 2019-2021
Co-supervised four MEng theses	2019-2022
Reviewer for IROS, ICASSP, EUSIPCO, WACV, ICIP, RAL, Computer Speech & Language	

SELECTED PUBLICATIONS

Total: 4 Journal, 19 Conference Peer-Reviewed Publications  Scholar

Journal Publications

- N. Efthymiou, **P. P. Filntisis**, G. Potamianos, and P. Maragos, “[Visual Robotic Perception System with Incremental Learning for Child–Robot Interaction Scenarios](#),” *Technologies*, vol. 9, 2021.
- P. P. Filntisis**, N. Efthymiou, P. Koutras, G. Potamianos, and P. Maragos, “[Fusing body posture with facial expressions for joint recognition of affect in child–robot interaction](#),” *IEEE Robotics and Automation Letters*, vol. 4, 2019.
- P. P. Filntisis**, A. Katsamanis, P. Tsiakoulis, and P. Maragos, “[Video-realistic expressive audio-visual speech synthesis for the Greek language](#),” *Speech Communication*, vol. 95, 2017.

Conference Publications

- P. P. Filntisis**, G. Retsinas, F. Paraperas-Papantoniou, A. Katsamanis, A. Roussos, and P. Maragos, “[Visual Speech-Aware Perceptual 3D Facial Expression Reconstruction from Videos](#),” in *to be submitted to CVPR*, 2023.
- C. O. Tze, **P. P. Filntisis**, D. Athanasia, A. Katsamanis, A. Roussos, and P. Maragos, “[Neural Sign Reenactor: Deep Photorealistic Sign Language Retargeting](#),” in *submitted to WACV*, 2022.
- F. Paraperas Papantoniou, **P. P. Filntisis**, P. Maragos, and A. Roussos, “[Neural Emotion Director: Speech-preserving semantic control of facial expressions in “in-the-wild” videos](#),” in *Proc. CVPR (Oral - Best Paper Finalist)*, 2022.
- G. Retsinas, **P. P. Filntisis**, N. Kardaris, and P. Maragos, “[Attribute-based gesture recognition: Generalization to unseen classes](#),” in *Proc. IVMSp*, 2022.
- P. P. Filntisis**, N. Efthymiou, G. Potamianos, and P. Maragos, “[An Audiovisual Child Emotion Recognition System for Child-Robot Interaction Applications](#),” in *Proc. EUSIPCO*, 2021.
- I. Pikoulis, **P. P. Filntisis**, and P. Maragos, “[Leveraging semantic scene characteristics and multi-stream convolutional architectures in a contextual approach for video-based visual emotion recognition in the wild](#),” in *Proc. FG*, 2021.
- P. Antoniadis, **P. P. Filntisis**, and P. Maragos, “[Exploiting emotional dependencies with graph convolutional networks for facial expression recognition](#),” in *Prof. FG*, 2021.
- P. Antoniadis, I. Pikoulis, **P. P. Filntisis**, and P. Maragos, “[An audiovisual and contextual approach for categorical and continuous emotion recognition in-the-wild](#),” in *Proc. CVPRW*, 2021.
- P. P. Filntisis**, N. Efthymiou, G. Potamianos, and P. Maragos, “[Emotion understanding in videos through body, context, and visual-semantic embedding loss](#),” in *Proc. ECCVW (Challenge Winner)*, 2020.