

# Panagiotis P. Filntisis

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Research scientist working at the crossroads of computer vision and audio processing for affective computing applications.  
My most recent endeavors include [visual emotion translation](#) and [3D visual speech-aware expression reconstruction](#).

## EDUCATION

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### National Technical University of Athens

Athens, Greece

*Ph.D. in Electrical and Computer Engineering*

*Nov. 2015 – Sep. 2022 (expected)*

- Advised by [Prof. Petros Maragos](#)
- **Areas:** Computer Vision, Machine Learning, Signal Processing, Affective Computing
- **Thesis:** Multimodal Deep Learning for Emotion Recognition and Expressive Synthesis in Human-Robot Interaction
- **TA:** Pattern Recognition and Machine Learning, Digital Signal Processing

### National Technical University of Athens

Athens, Greece

*MEng in Electrical and Computer Engineering*

*Oct. 2007 – Oct. 2015*

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

## RESEARCH EXPERIENCE

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### Athena Research and Innovation Center

Maroussi, Greece

*Research Assistant*

*Jan. 2016 –*

- Conducted research on EU Horizon 2020 Programmes: BabyRobot, iMuSciCA, EASIER (ongoing)
- Developed deep learning methods for audio-visual perception for human and child-robot interaction (BabyRobot).
- Implemented 3D human models for musical instrument playing (iMuSciCA).
- Designed and implemented deep learning systems for visual emotion recognition (BabyRobot, EASIER).
- Developed a mobile voice assistant for COSMOTE using speech recognition, synthesis, and dialog modeling.

### National Technical University of Athens

Athens, Greece

*Research Assistant*

*Feb. 2019 –*

- Conducted research on EU funded Programmes: ePrevention (ongoing), TeachBot, BonsAPPs.
- Developed statistical and machine learning methods for anomaly detection in wearable biosignals (ePrevention).
- Developed a child-robot interaction system with emotion and incremental action recognition (TeachBot).
- Developed and deployed a gesture/action recognition system in driving conditions (BonsAPPs).

## ADDITIONAL WORK EXPERIENCE

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### feelbit

Athens, Greece

*Co-founder, Full-Stack Engineer*

*Jun. 2015 – Oct. 2017*

Developed front-end and back-end solutions.

### Beenotes

Athens, Greece

*Full-Stack Engineer*

*Mar. 2015 – Jan. 2016*

Responsible for developing front-end (Ember.js) and back-end (Ruby-on-Rail) services.

### Freelance

Athens, Greece

*Web Developer*

*Oct. 2014 – Oct. 2015*

Designed and implemented front and back-end services for various websites.

### Fountas Books

Athens, Greece

*Translator*

*Oct. 2012 – Sep. 2014*

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

## AWARDS AND CERTIFICATES

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CVPR Best Paper Finalist with <a href="#">Neural Emotion Director</a>	Jun. 2022
ECCV <a href="#">BEEU Workshop</a> Challenge Winners	Aug. 2020
Thomaidion Award for Scientific Publications	Sep. 2019
IROS 2019 Travel Grant Awardee	Oct. 2019
ICVSS 2018 Selected for participation	Jul. 2018
IEEE SPS Travel Grant Awardee	Jun. 2017
10 Best StartUps in “Reditup” contest” by “Papastratos”	Jun. 2015
IEEE NTUA SB – EMB Chapter Apps4meds’s Hackathon First Place	Nov. 2014

## SKILLS

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

## SELECTED PUBLICATIONS

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Total: 4 Journal, 17 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 *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. 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.

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.