

# Georgios Paraskevopoulos

## PERSONAL INFORMATION

Place and Date of Birth: Athens, Greece — 17 September 1991  
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email: [georgepar.91@gmail.com](mailto:georgepar.91@gmail.com), [geopar@central.ntua.gr](mailto:geopar@central.ntua.gr)  
Online: [Google Scholar](#), [github](#)

## RESEARCH INTERESTS

• Multimodal Representations • Natural Language Processing • Transfer Learning

## EDUCATION

*PhD student*, Computer Science  
National Technical University of Athens, Athens, Greece Current  
Advisor - Prof. Alexandros Potamianos  
THESIS - “Extraction of deep multimodal representations and application in learning from limited data”  
  
*Diploma (5-year joint degree; 300 ECTS) (BEng & MEng)*, Electrical and Computer Engineering  
National Technical University of Athens, Athens, Greece June 2016  
Thesis - “Smart Room Gesture Control using Kinect skeletal data”  
Supervisor - Prof. Stefanos Kollias  
In collaboration with Dr. Evaggelos Spyrou at NCSR Demokritos

## PROFESSIONAL EXPERIENCE

*National Technical University of Athens*, Athens, Greece September 2017 – Current  
Teaching Assistant. Responsible for the following courses:

- Pattern Recognition
- Speech and Language Processing
- Signals and Systems

*Behavioral Signals*, Athens, Greece Dec 2019 – Current  
Machine Learning Engineer

- Domain adaptation of ML models for different use cases
- Dockerization and performance improvement of deployed models
- Developed an Automatic Speech Recognition system for Greek language

*Amazon Lab126*, CA, USA Aug 2019 – Nov 2019  
Applied Research Scientist Internship. Supervisor: Shiva Sundaram

- Worked on multimodal grounding for Automatic Speech Recognition
- Contributed to internal framework for distributed neural network training
- Paper “Multimodal and Multiresolution Speech Recognition with Transformers” accepted for publication in ACL2020 conference

*Behavioral Signals*, Athens, Greece April 2018 – April 2019  
Machine Learning Engineer

- Improving the performance of Emotion Recognition from speech technology with regard to core KPIs
- Bridging the gap between R&D and production by integrating ML models into CI
- Design and development of baseline NLP models
- [Quentin Furhatino demo](#)

*National Technical University of Athens*, Athens, Greece

May 2017 – May 2019

Research Assistant.

- Worked on Babyrobot EU project. Babyrobot aims to develop state-of-the-art social robotics with application on ASD children inclusion.

*Behavioral Signals*, Athens, Greece

September 2017 – March 2018

DevOps Engineer

- Developing a CI/CD pipeline with Jenkins
- Establishing a development process based on Code Reviews and Continuous Integration

*Intracom Telecom*, Athens, Greece

July 2015 – May 2017

SDN/NFV R&D Engineer

- OpenDaylight SDN controller scalability optimization
- NFV accelerator: Automatic NFV workload optimization
- Contributions to OPNFV open-source project. OPNFV aims to create a reference NFV platform through system level integration, deployment and testing.

*NCSR Demokritos*, Athens, Greece

January 2015 – November 2016

Research Assistant

- Developed my thesis project. Aigaio NUI is a gesture based Natural User Interface for a smart room integrated into the [SYNAISTHISI](#) platform.
- Technical presentation of the project available on [slideshare](#) and on [github](#).
- Demo video available [here](#) (the video is in Greek).

## PUBLICATIONS

Xezonaki D., **Paraskevopoulos G.**, Potamianos A., Narayanan S. “Affective Conditioning on Hierarchical Attention Networks applied to Depression Detection from Transcribed Clinical Interviews”, under review for Interspeech 2020

**Paraskevopoulos G.**, Parthasarathy S., Khare A., Sundaram S. “Multiresolution and Multimodal Speech Recognition with Transformers”. In Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (2020) [[preprint](#)]

**Paraskevopoulos G.**, Spyrou E., Sgouropoulos D., Giannakopoulos T., Mylonas P. “Real-time arm gesture recognition using 3D skeleton joint data”. *Algorithms*, 12(5), p.108 (2019) [[paper](#)]

Chatziagapi A., **Paraskevopoulos G.**, Sgouropoulos D., Pantazopoulos G., Nikandrou M., Giannakopoulos T., Katsamanis A., Potamianos A., Narayanan S. “Data Augmentation using GANs for Speech Emotion Recognition”. *Proc. Interspeech 2019* (pp. 171-175). [[paper](#)]

**Paraskevopoulos, G.**, Tzinis, E., Ellinas, N., Giannakopoulos, T., Potamianos, A. “Unsupervised low-rank representations for speech emotion recognition”. In *Proceedings of Interspeech 2019* (pp. 939-943). [[paper](#)]

**Paraskevopoulos, G.**, Tzinis, E., Vlatakis, E., Potamianos, A. “Pattern Search Multidimensional Scaling”, *CoRR preprint*, (2018) [[preprint](#)], [[code](#)]

Tzinis, E., **Paraskevopoulos, G.**, Baziotis, C., and Potamianos, A. “Integrating Recurrence Dynamics for Speech Emotion Recognition”. In Proceedings of Interspeech 2018 (pp. 927931). [\[paper\]](#), [\[code\]](#)

Baziotis, C., Nikolaos, A., Chronopoulou, A., Kolovou, A., **Paraskevopoulos, G.**, Ellinas, N., Narayanan, S., and Potamianos, A. “NTUA-SLP at SemEval-2018 Task 1: Predicting Affective Content in Tweets with Deep Attentive RNNs and Transfer Learning”. In Proceedings of The 12th International Workshop on Semantic Evaluation (pp. 245255). New Orleans, Louisiana NAACL, 2018. [\[paper\]](#) [\[code\]](#)

Baziotis, C., Nikolaos, A., Kolovou, A., **Paraskevopoulos, G.**, Ellinas, N., and Potamianos, A. “NTUA-SLP at SemEval-2018 Task 2: Predicting Emojis using RNNs with Context-aware Attention”. In Proceedings of The 12th International Workshop on Semantic Evaluation (pp. 438444). New Orleans, Louisiana NAACL, 2018. [\[paper\]](#) [\[code\]](#)

Baziotis, C., Nikolaos, A., Papalampidi, P., Kolovou, A., **Paraskevopoulos, G.**, Ellinas, N., and Potamianos, A. “NTUA-SLP at SemEval-2018 Task 3: Tracking Ironic Tweets using Ensembles of Word and Character Level Attentive RNNs”. In Proceedings of The 12th International Workshop on Semantic Evaluation (pp. 613-621). New Orleans, Louisiana NAACL, 2018. [\[paper\]](#) [\[code\]](#)

**Paraskevopoulos, G.**, Karamanolakis, G., Iosif, E., Pikrakis, A., Potamianos, A., “Sensory-Aware Multimodal Fusion for Word Semantic Similarity Estimation”. MultiLearn2017: Multimodal Processing, Modeling and Learning for Human-Computer/Robot Interaction Workshop, in conjunction with EUSIPCO-2017 [\[paper\]](#)

**Paraskevopoulos, G.**, Spyrou, E., Sgouropoulos, D., “A Real-Time Approach for Gesture Recognition Using the Kinect Sensor”. In Proceedings of the 9th Hellenic Conference on Artificial Intelligence (pp. 31:1–31:4), Thessaloniki, Greece, SETN 2016.

## OPEN-SOURCE PROJECTS AND CONTENT

**slp:** (WIP) A framework to develop models for natural language and speech processing

**Pattern Search MDS:** A Cython optimized version of Pattern Search Multidimensional Scaling algorithm, implemented as a scikit-learn module

**gentemadata:** A toolkit to GENerate synthetic MANifold geometry DATAsets

**Python Lab:** Introductory Python Lab for NTUA Pattern Recognition course. Covers a basic introduction in Python, NumPy, scikit-learn and PyTorch

**Python Performance Tutorial:** A tutorial on profiling and optimizing Python code

**Opensmile-ROS:** Integrate Opensmile feature extraction toolkit with ROS

**kaldi-docker:** Ease up the deployment of Kaldi using docker containers

## TECHNICAL SKILLS

ML Frameworks:	PyTorch, scikit-learn, Keras
Programming Languages:	Python, Javascript, Go, Bash, C/C++
Other Libraries/Frameworks:	plot.ly, matplotlib, d3.js, ROS, OpenCV, Kinect SDK
DevOps Tools:	Docker, Jenkins
Testing Frameworks:	pytest, Chai.js
Operating Systems:	Linux, Windows

## STUDENTS

Collaborated with MsC students on their theses projects:

- Xezonaki Danai, Affective Conditioning on Hierarchical Attention Networks applied to Depression Detection from Transcribed Clinical Interviews
- Nikandrou Malvina, An attentive Seq2seq model for Visual Question Answering

## **LANGUAGES**

Greek: Mother tongue  
English: Fluent — Proficiency, University of Michigan, 2006  
German: Basic Knowledge — Mittelstufe, Goethe Institut, 2005