Aggelina Chatziagapi

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Education

PhD in Computer Science

Aug. 2020 - Present

Stony Brook University, New York

- Research interests: Computer Vision and Deep Learning (Advisor: Prof. Dimitris Samaras)
- Relevant coursework: Computer Vision, Machine Learning, Robotics, Natural Language Processing (GPA: 4.0)

BSc & MSc in Electrical and Computer Engineering

Sept. 2011 - Aug. 2017

National Technical University of Athens (NTUA), Greece

- Thesis: "Speaker Adaptation for Speech Emotion Recognition" (Advisor: Prof. Alexandros Potamianos)
- Relevant coursework: Computer Vision, Pattern Recognition, Digital Signal Processing, Image and Video Analysis and Technology, Medical Image Processing, Speech and Natural Language Processing

Professional and Research Experience

Research & Teaching Assistant

Aug. 2020 - Present

Computer Vision Lab, Stony Brook University, New York

- Carry out research in 3D/4D implicit representations (NeRFs, SDFs, etc) for human face reconstruction, talking face generation, and human body animation
- Carry out research in audio-driven talking face video synthesis and expression transfer (& Amazon Prime Video)
- Teaching Assistant for Machine Learning course

Research Scientist Intern & Student Researcher

May 2023 - Nov. 2023

Meta Reality Labs, San Francisco, CA

- Carried out research in generalizable dynamic NeRFs for 4D full-body talking human animation
- Achieved state-of-the-art performance in animating talking humans under novel body poses, hand articulation, and facial expressions (under submission)

Research Scientist Intern & Student Researcher

May 2022 - Nov. 2022

Meta Reality Labs, Redmond, WA

- Carried out research in multimodal (audio-visual) 4D face reconstruction
- Achieved state-of-the-art performance in face reconstruction by introducing an audio-driven implicit representation for the lip shape, temporal modeling to handle occlussions, and a fine stage to recover facial details

Machine Learning Engineer

April 2018 - May 2020

Behavioral Signal Technologies, Los Angeles, CA (worked remotely from Greece)

- Developed robust models to recognize emotions and behaviors from speech in various domains and conditions
- Carried out research in data augmentation and GANs to address data imbalance in the real world
- Built the training and evaluation pipelines of the company's ML infrastructure

Computer Vision Engineer Intern

Sept. 2017 - March 2018

Terabee (CERN spin-off), Geneva, Switzerland

- Developed a people tracking and counting system using a ToF depth camera
- Developed an image processing algorithm to generate robot trajectories based on sensor data
- Adapted an optical character recognition system to real-world conditions

Lab & Research Assistant

Sept. 2016 - Aug. 2017

Speech and Language Processing Group, NTUA, Greece

• Carried out research in speech emotion recognition and speaker adaptation

Publications

- A. Chatziagapi and D. Samaras, "AVFace: Towards Detailed Audio-Visual 4D Face Reconstruction," Conference on Computer Vision and Pattern Recognition (CVPR), 2023 [pdf]
- A. Chatziagapi, S. Athar, A. Jain, R. MV, V. Bhat, and D. Samaras, "LipNeRF: What is the right feature space to lip-sync a NeRF?," *International Conference on Automatic Face and Gesture Recognition*, 2023 [pdf]
- A. Chatziagapi, S. Athar, F. Moreno-Noguer, and D. Samaras, "SIDER: Single-Image Neural Optimization for Facial Geometric Detail Recovery," *International Conference on 3D Vision (3DV)*, 2021 [pdf]

• A. Chatziagapi, G. Paraskevopoulos, D. Sgouropoulos, G. Pantazopoulos, M. Nikandrou, T. Giannakopoulos, A. Katsamanis, A. Potamianos, and S. Narayanan, "Data Augmentation Using GANs for Speech Emotion Recognition," *Interspeech*, 2019 (oral) [pdf] [US patent]

Technical Skills

Programming Python, C/C++, MATLAB, UNIX Shell Scripting

Software Tools PyTorch, Keras/TensorFlow, NumPy, OpenCV, Scikit-learn, Git

Languages

English (fluent), French (intermediate), Greek (native)

Honors and Awards

ISCA Travel Grant, Interspeech 2019, Austria	Sept. 2019
Honors, ranked 1st in math and science courses, I.M. Panagiotopoulos, Greece	June~2011

Extra-Curricular Activities

Volunteer & Reviewer, IEEE 2018 Workshop on Spoken Language Technology, Greece	Dec. 2018
Deep Learning Specialization, deeplearning.ai, Coursera	$April\ 2018$
Certificate in Dance Teaching, Ministry of Culture and Sports, Greece	June~2015