# NIKOLAOS SARAFIANOS

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## Experience

• Amazon, Alexa Machine Learning, Research Scientist Intern, Cambridge, MA

(05.2017 - 08.2017)

- Deep multi-task/multi-label classification using audio data
- University of Houston, Research Assistant, Houston, TX

(09.2014 - Present)

- Developed a **Deep Learning** method to classify the visual attributes of humans from images. [Python, Theano]
- Developed a method to **predict privileged information** at test time for **height estimation**. [Python]
- Developed a method employing **privileged information** for **gender classification** from images. [Python]
- Survey on **3D human pose estimation**: created a dataset and evaluated state-of-the-art methods. [Matlab, CVX]
- National Center for Scientific Research Demokritos, Research Assistant, Athens, Greece

(12.2012 - 07.2014)

- Given a video of people speaking find "who spoke when" using audio-visual information. [Matlab]

#### Education

• Ph.D. in Computer Science, University of Houston, Houston, TX

(09.2014 - **Expected: 05.2019**)

- Advisor: Prof. Ioannis Kakadiaris
- Diploma in Electrical and Computer Engineering, National Technical University of Athens, Greece (09.2008 10.2013)
  - 5-year studies equivalent to Master

### **Publications**

- 1. N. Sarafianos, T. Giannakopoulos, C. Nikou and I.A. Kakadiaris. "Curriculum Learning of Visual Attribute Clusters for Multi-Task Classification," Pattern Recognition 2017 (under review)
- 2. N. Sarafianos, M. Vrigkas and I.A. Kakadiaris. "Adaptive SVM+: Learning with Privileged Information for Domain Adaptation," ICCV Workshop on Transferring and Adapting Source Knowledge in Computer Vision 2017
- 3. N. Sarafianos, T. Giannakopoulos, C. Nikou and I.A. Kakadiaris. "Curriculum Learning for Multi-Task Classification of Visual Attributes," ICCV Workshop on Transferring and Adapting Source Knowledge in Computer Vision 2017
- 4. N. Sarafianos, B. Boteanu, B. Ionescu and I.A. Kakadiaris. "3D Human Pose Estimation: A Review of the Literature and Analysis of Covariates," CVIU 2016
- 5. N. Sarafianos, C. Nikou, and I.A. Kakadiaris. "Predicting Privileged Information for Height Estimation," ICPR 2016
- 6. I.A. Kakadiaris, N. Sarafianos and C. Nikou. "Show me your body: Gender classification from still images," ICIP 2016
- 7. N. Sarafianos, T. Giannakopoulos, and S. Petridis, "Audio-visual speaker diarization using Fisher linear semi-discriminant analysis," Multimedia Tools and Applications 2014

### **Programming Skills**

• Proficient: Python, MATLAB Fluent: R, C++, Java, SQL

• Deep Learning frameworks: Tensorflow, Keras, Theano Optimization Toolboxes: CVX, CVXOPT

# Volunteering

• Girls Who Code instructor (09.2016 - Present)

• Grace Hopper celebration of women in computing - Anita Borg Institute (10.2016)

• Math instructor of students from Houston underserved communities (09.2015 - 11.2015)

### Awards

• Google Self-Organizing Conference on Machine Learning invitation (11.2017)

• Best poster award at the University of Houston's PhD showcase (04.2017)

• Hellenic professional society of Texas scholarship (12.2016)

• NSF PETRA conference doctoral consortium travel award (07.2015)