Anastasis Stathopoulos

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EDUCATION

Rutgers University — **Piscataway, NJ, USA**
Ph.D. Student in Computer Science — *Sept. 2018 - Present*
- **Advisor:** Dimitris Metaxas | **GPA:** 3.95/4.00
- **Research Area:** Computer Vision and Deep Learning

National Technical University of Athens (NTUA) — **Athens, Greece**
Integrated Masters in Electrical & Computer Engineering (ECE) — *Oct. 2012 - June 2018*
- **Major:** Computer Engineering | **GPA:** 8.12/10.00
- **Thesis:** Real-time Joint Semantic Reasoning for Autonomous Driving

EXPERIENCE

Amazon Prime Video, Video Compliance & Classification — **Seattle, WA, USA**
Applied Science Intern | Video Understanding — *May 2020 - Aug. 2020*
- Self-Supervised Video Representation Learning
- Representation Learning for Human Activity Recognition
- Produced publication for internal conference
- **Technologies:** Python • PyTorch • Apache MXNet

Rutgers University, Computer Science Department, CBIM — **Piscataway, NJ, USA**
Research Assistant | Advisor: Dimitris Metaxas — *Sept. 2018 - Present*
- Shape Reconstruction from a Single Image (*Current Work*)
- Deception Detection in Videos using Robust Facial Features (*FTC 2020*)
  - ◇ Built model to detect deception in videos based on visual cues
  - ◇ Surpassed previous SOTA methods on the task
  - ◇ Proposed mechanism to interpret the model's prediction as a function of the FAUs
- Unbiased Auxiliary Classifier GANs (*CVPRW 2020*)
  - ◇ Reduced bias in GANs by estimating the Mutual Information between the generated data distribution and the labels
  - ◇ Evaluated on Image Generation datasets surpassing previous methods
  - ◇ Metrics: Inception Score and Frenchet Inception Distance
- **Technologies:** Python • PyTorch

Teaching Assistant — *Sept. 2018 - May 2020*
- CS:112: Data Structures (*Spring 2019, 2020*)
- CS:596: Topics in the Foundations of Computer and Data Science (*Fall 2019*)
- CS:314: Principles of Programming Languages (*Fall 2018*)
- **Technologies:** Java • Matlab • Haskell • Prolog

National Technical University of Athens (NTUA), ISLAB — **Athens, Greece**
Research Assistant | Thesis Preparation | Advisor: Andreas Stafylopatis — *Sept. 2017 - June 2018*
- Built model for joint Semantic Segmentation and Object Detection via a unified architecture
- Road Segmentation and Vehicle Detection in the KITTI dataset | Inference speed: 12 fps
- **Technologies:** Python • Tensorflow • Keras

Rutgers University, ECE department, RADICAL — **Piscataway, NJ, USA**
Visiting Researcher | Host: Shantenu Jha — *Summer 2016*
- Implemented the Watershed Segmentation Algorithm and applied it to cell tissue images

- Conducted experiments in parallel and distributed environments to characterize its performance
- **Technologies:** Python • Radical Pilot • Apache Spark

PUBLICATIONS

[1] **Anastasis Stathopoulos**, Ligong Han, Norah Dunbar, Judee K. Burgoon, Dimitris Metaxas, "Deception Detection in Videos using Robust Facial Features". *In Proceedings of Future Technologies Conference (FTC), 2020.* **Best Student Paper Award**

[2] Ligong Han, **Anastasis Stathopoulos**, Tao Xue, Dimitris Metaxas, "Unbiased Auxiliary Classifier GANs with MINE". *In CVPR workshop on Adversarial Machine Learning in Computer Vision, 2020.* **Oral Presentation** **DeepMind Travel Award**

TECHNICAL PROJECTS

Plug-and-Play Controlled Text Generation via Attribute-based Attention *Spring 2020*
- Proposed and built the first *plug-and-play* model that handles infobox-style *attribute-value pairs* for *conditional text generation*
- Combined a pre-trained unconditional language model (GPT-2) with an NER tagging system (BERT-based attribute classifier) for controllable text generation without fine-tuning
- **Technologies:** Python • PyTorch

Missing-Data Imputation *Spring 2019*
- Implemented a variation of an autoencoder to impute missing data in the dataset
- Treated the task of filling arithmetic and categorical values uniformly
- **Technologies:** Python (no DL frameworks used - implemented everything from scratch) • Pandas

Chord Protocol Implementation *Fall 2016*
- Implemented (i) *sequential replica consistency* and (ii) *eventual replica consistency* versions of the Chord protocol
- **Technology:** Erlang

TECHNICAL SKILLS

Programming Languages: Python, C/C++, Java, Matlab, Erlang, Haskell, HTML/CSS
Frameworks: PyTorch, TensorFlow, MXNet, Keras, GluonCV, OpenCV
Tools and Platforms: Linux, Mac OSX, Windows, AWS, Git, Vim, LaTeX, Scrum, Kanban Board, MySQL, MongoDB

SOFT SKILLS

Self-motivated | Proactive | Easy-going | Enthusiastic to learn new things
Languages: *Greek* (Native), *English* (Fluent, level C2), *German* (Advanced, level C1)

HONORS AND AWARDS

Best Student Paper Award, FTC 2020 *2020*
DeepMind Travel Award, CVPR 2020 workshop on Adversarial ML in Computer Vision *2020*
Gerondelis Graduate Student Fellowship Award, Gerondelis Foundation *2019*

ACADEMIC SERVICE

Volunteer: SPAWC 2018
External Reviewer: CVPR 2019, ECCV 2020