Stefan Stojanov

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sstojanov.github.io

Education

Georgia Institute of Technology — Atlanta, GA
PhD in Computer Science advised by Prof. James M. Rehg — August 2017 - December 2023

Bard College — Annandale-on-Hudson, NY
BA in Mathematics and Computer Science — August 2013 - May 2017

Research Experience

Postdoctoral Scholar — Stanford, CA
Stanford University — Winter 2024 - present
∘ Advised by Prof. Jiajun Wu at the Stanford Vision and Learning lab and Prof. Dan Yamins at the NeuroAILab

Research Intern — Remote
Facebook Reality Labs — Summer 2021
∘ Worked with the Eye Tracking team to apply 3D computer vision techniques to gaze estimation. Successfully contributed to an ETRA short paper.

Applied Research Intern — Sunnyvale, CA
Amazon Lab 126 — Fall 2018, Summer 2019
∘ Worked with James Rehg and Ambrish Tyagi on 3D human pose estimation, human action recognition, and synthetic data generation. Successfully contributed to CVPR2019 submission.

Undergraduate Research Intern — Boston, MA
Broad Institute of MIT and Harvard — Summer 2016
∘ Worked with Michael Lawrence, Julian Hess, and Gad Getz on developing mathematical models for DNA damage and repair based on autoencoders and nonnegative matrix factorization.

Undergraduate Research Intern — Annandale-on-Hudson, NY
Bard Summer Research Institute — Summer 2015
∘ Worked with Sven Anderson on applying the CBOW word2vec model for lexical text simplification.

Publications and Preprints

1. *ZeroShape: ZeroShape: Regression-based Zero-shot Shape Reconstruction*
   Zixuan Huang*, **Stefan Stojanov***, Anh Thai, Varun Jampani, James Rehg, – CVPR 2024
2. *Low-shot Object Learning with Mutual Exclusivity Bias*
   Anh Thai, Ahmad Humayun*, **Stefan Stojanov***, Zixuan Huang,
   Bikram Boote, James Rehg, – NeurIPS 2023 Datasets and Benchmarks
3. *ShapeClipper: Scalable 3D Shape Learning via Geometric and CLIP-based Consistency*
   Zixuan Huang, Varun Jampani, Ngoc Anh Thai, Yuanzhen Li, **Stefan Stojanov**,
   James M. Rehg – CVPR 2023
4. *Learning Dense Object Descriptors from Multiple Views for Low-shot Category Generalization*
   Stefan Stojanov, Anh Thai, Zixuan Huang, James M. Rehg – NeurIPS 2022
5. *Planes vs. Chairs: Category-guided 3D shape learning without any 3D cues*
   Zixuan Huang, **Stefan Stojanov**, Anh Thai, Varun Jampani, James M. Rehg – ECCV 2022

6. *The Surprising Positive Knowledge Transfer in Continual 3D Object Shape Reconstruction*
   Anh Thai, **Stefan Stojanov**, James M. Rehg – 3DV 2022
7. *The Benefits of Depth Information for Head-Mounted Gaze Estimation*
   Stefan Stojanov, Sachin S Talathi, Abhishek Sharma – ETRA 2022 Short Paper
8. *Using Shape to Categorize: Low-Shot Learning with an Explicit Shape Bias*
   Stefan Stojanov, Anh Thai, James M. Rehg – CVPR 2021
9. *3D Reconstruction of Novel Object Shapes from Single Images*
   Anh Thai*, **Stefan Stojanov***, Vijay Upadhya, James M. Rehg – 3DV 2021
10. *Incremental Object Learning from Contiguous Views*
    Stefan Stojanov, Samarth Mishra, Ngoc Anh Thai, Ahmad Humayun, Nikhil Dhanda, Chen Yu, Linda B. Smith, James M. Rehg – CVPR 2019 oral, best paper finalist (45 of 5,160 submissions)
11. *Unsupervised 3D Pose Estimation with Geometric Self-Supervision*
    Chinghang Chen, Ambrish Tyagi, Amit Agrawal, Dylan Drover, Rohith MV Kumar, **Stefan Stojanov**, James M. Rehg – CVPR 2019

Honors and Awards

1. Stanford HAI Postdoctoral Fellowship, 2024
2. Best Paper Finalist, *Incremental Object Learning from Contiguous Views*, CVPR 2019.
3. Dr. Richard M. Siegel Memorial Prize in Science - awarded to a graduating student at Bard College for academic excellence in science.
4. Distinguished Scientist Scholarship (4 Years Full Tuition), Bard College.

Teaching

1. Teaching Assistant, Computer Vision (CS 4476/6476) — Fall 2017
2. Teaching Assistant, Computer Vision (CS 4476) — Fall 2019

Professional Activities

Conference Reviewing

- Neural Information Processing Systems (NeurIPS) — 2020, 2021, 2022
- Computer Vision and Pattern Recognition (CVPR) — 2020, 2021, 2022, 2023, 2024
- British Machine Vision Conference (BMVC) — 2020
- Asian Conference on Computer Vision (ACCV) — 2020
- Winter Conference on Applications of Computer Vision (WACV) — 2021
- International Conference of Machine Learning (ICML) — 2021 (top 10%), 2022, 2023
- International Conference of Computer Vision (ICCV) — 2021

Event Organization

- Developmental Machine Learning: From Human Learning to Machines and Back - Student volunteer for seminar organization

Posters & Talks

1. *The success of continual machine learning in an infant-inspired setting* — Poster at Virtual International Congress of Infant Studies (vICIS2020)
2. *Instance to category generalization: A self-supervised model inspired by infant learning* — Poster at International Congress of Infant Studies (ICIS2022)

Skills

Programming Languages: Python, MATLAB, C, C++, Bash, Java
Tools: PyTorch, Blender, OpenCV, NumPy, Trimesh

References

1. Prof. James M. Rehg - rehg@gatech.edu
   Professor at Georgia Institute of Technology - PhD Advisor
2. Abhishek Sharma - abhisharayiya@gmail.com
   Research Manager at Cruise - Internship Mentor at Reality Labs