

EDUCATION

University of Illinois

Ph.D. in Computer Science

Advisor: Svetlana Lazebnik

Committee: David Forsyth, Derek Hoiem, Joseph Tighe, Svetlana Lazebnik

Urbana, IL

Aug. 2017 – Present

Duke University

B.S. in Computer Science, B.S. in Mathematics; magna cum laude

Durham, NC

Aug. 2013 – May. 2017

RESEARCH EXPERIENCE

Adobe

Research Science Intern, Creative Intelligence Lab

Mentors: Bryan Russell, Justin Salamon, Josef Sivic

- Project on text-guided automatic music recommendation for video

Amazon

Applied Science Intern, Amazon AI

Mentors: Bing Shuai, Davide Modolo, Joseph Tighe

- Project on occlusion handling in multi-object tracking

Applied Science Intern, Amazon AI

- Research focused on multi-object tracking from unlabeled or weakly-labeled data

Applied Science Intern, Amazon AI

- Research on unsupervised learning in video for visual correspondence

A9.com

Applied Science Intern, Visual Search

Mentors: Sunaad Nataraju, Doug Gray

- Project aimed at improving image representation learning using hyperbolic embeddings

Duke Humans and Autonomy Lab

Research Assistant

Mentor: Alexander Stimpson

- Created predictive models using dataset of geographic movements collected from elephants in Gabon

Seattle, WA

Feb. 2021 - Sept. 2021

Summer 2020

Summer 2019

Palo Alto, CA

Summer 2018

Durham, NC

Spring 2016 - Spring 2017

PUBLICATIONS

Language-Guided Music Recommendation for Video via Prompt Analogies

[Coming soon!]

D. McKee, J. Salamon, J. Sivic, B. Russell

→ Work done at Adobe

Under review

Robust Online Video Instance Segmentation with Track Queries

[Project | ArXiv]

Z. Zhan, **D. McKee**, S. Lazebnik

Under review

Transfer of Representations to Video Label Propagation: Implementation Factors Matter

[Project | ArXiv]

D. McKee, Z. Zhan, B. Shuai, D. Modolo, J. Tighe, S. Lazebnik

→ Work done at Amazon

Under review

Multi-Object Tracking with Hallucinated and Unlabeled Videos

[Project | ArXiv]

D. McKee, B. Shuai, A. Berneshawi, M. Wang, D. Modolo, S. Lazebnik, J. Tighe

→ Work done at Amazon

Presented at CVPR 2021 Workshop on Learning from Unlabeled Videos [Link]

Dressing in Order: Recurrent Person Image Generation for Pose Transfer, Virtual Try-on and Outfit Editing

[Project | ArXiv]

A. Cui, D. McKee, S. Lazebnik

ICCV 2021, Best Paper at CVPR 2021 CVFAD Workshop

TEACHING EXPERIENCE

University of Illinois

Urbana, IL

Head Teaching Assistant, Computer Vision [Link]

Fall 2022

- Coordination of assignments, grading, and office hours for class of ~250 students

Teaching Assistant, Introduction to Deep Learning [Link]

Fall 2018

- Developed assignments for new course. Held office hours and in-class tutorials for ~100 students

Duke University

Durham, NC

Teaching Assistant, Introduction to Computer Science

Fall 2014 - Fall 2015

- Conducted weekly lab section with 25 students. Assisted in grading and office hours

Teaching Assistant, Software Design and Implementation

Spring 2016 - Spring 2017

- Held weekly student meetings to review code and improve design practices

SKILLS

Languages: *Experienced in:* Python, Java, MATLAB; *Familiar with:* C/C++, Javascript

Technologies: PyTorch, SciPy, Git, AWS/Google Cloud

SERVICE

Reviewer: ECCV and CVPR

Student Admin: Help manage membership, maintenance, and troubleshooting for vision group GPU cluster at Illinois

AWARDS

Illinois SURGE Fellowship, Sloan UCEM Fellowship, National Merit Scholar, National Hispanic Scholar