

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

San Francisco, CA

May 2022 - Nov. 2022

Amazon

Applied Science Intern, Amazon AI

Mentors: Bing Shuai, Davide Modolo, Joseph Tighe

- Project on occlusion handling in multi-object tracking

Seattle, WA

Feb. 2021 - Sept. 2021

Applied Science Intern, Amazon AI

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

Summer 2020

Applied Science Intern, Amazon AI

- Research on unsupervised learning in video for visual correspondence

Summer 2019

A9.com

Applied Science Intern, Visual Search

Mentors: Sunaad Nataraju, Doug Gray

- Project aimed at improving image representation learning using hyperbolic embeddings

Palo Alto, CA

Summer 2018

Duke Humans and Autonomy Lab

Research Assistant

Mentor: Alexander Stimpson

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

Durham, NC

Spring 2016 - Spring 2017

PUBLICATIONS

Language-Guided Music Recommendation for Video via Prompt Analogies

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

CVPR 2023

[Coming soon!]

→ Work done at Adobe

Robust Online Video Instance Segmentation with Track Queries

Z. Zhan, D. McKee, S. Lazebnik

Under review

[Project | ArXiv]

Transfer of Representations to Video Label Propagation: Implementation Factors Matter

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

Under review

[Project | ArXiv]

→ Work done at Amazon

Multi-Object Tracking with Hallucinated and Unlabeled Videos

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

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

[Project | ArXiv]

→ Work done at Amazon

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