

EDUCATION

University of Illinois at Urbana-Champaign

December 2020

Computer Engineering, B.S.

GPA: 3.98

Awards and Honors

- Henry O. Koehler Merit Scholarship 2020
- Daniel W. and Carol A. Dobberpuhl Award¹ 2020
- Omron Electrical Engineering Scholarship² 2019, 2020
- Fiddler Innovation Undergraduate Student Fellowship 2019
- Ackmann Family Scholarship¹ 2018

¹Awarded to one student out of a pool of 1000+, ²Awarded to two students out of a pool of 1000+

EXPERIENCE

Coordinated Science Laboratory

Jan 2020 to Present

Undergraduate Researcher (Advisor: Prof. Saurabh Gupta)

Champaign, IL

- Designed contrastive learning- and forward prediction-based self-supervised approaches to extract action embeddings from unlabeled egocentric videos for the task of visual navigation.

Beckman Institute for Advanced Science and Technology

Jan 2019 to Present

Undergraduate Researcher (Advisors: Prof. Diane Beck, Prof. Thomas Huang)

Champaign, IL

- Studied the role of prototypical images in the Places365-CNNs, a family of modern scene recognition models, in comparison with the human visual system.
- Improved the Show and Tell & Bottom-Up and Top-Down Attention image captioning models using Doc2Vec to surpass state-of-the-art baseline results with the Visual Genome dataset.

National Center for Supercomputing Applications

Jan 2018 to Aug 2020

Undergraduate Researcher (Advisors: Prof. Eliu Huerta, Prof. Zhizhen Zhao)

Champaign, IL

- Designed WaveNet- and ConvNetQuake-based convolutional neural networks for state-of-the-art heart condition prediction based on ECG signals.

IBM Center for Cognitive Computing Systems Research

May 2019 to Aug 2019

Software Engineering Intern (Advisor: Prof. Sanjay Patel)

Champaign, IL

- Implemented supervised and unsupervised learning algorithms for classification and clustering on radar data.

ACM – Special Interest Group for Artificial Intelligence

Aug 2018 to Aug 2020

Co-Chair

Champaign, IL

- Created and delivered content using Tensorflow, PyTorch, and Keras to teach beginners the fundamentals of Deep Learning. We are the largest ACM chapter in the nation.

PUBLICATIONS

1. Matthew Chang, **Arjun Gupta**, and Saurabh Gupta. Semantic visual navigation by watching YouTube videos. In *Advances in Neural Information Processing Systems (NeurIPS)*, 2020.
2. **Arjun Gupta**, Eliu Huerta, Zhizhen Zhao, and Issam Moussa. Deep Learning for Cardiologist-level Myocardial Infarction Detection in Electrocardiograms. In *European and Medical Biological Engineering Conference (EMBECE)*, 2020.