arjung2@illinois.edu   **ARJUN GUPTA**   github.com/arjung128

EDUCATION

University of Illinois at Urbana-Champaign   *May 2020*
Computer Engineering, B.S.   *GPA: 3.97*
Awarded Ackmann Family Scholarship (awarded to one outstanding Junior/Senior of a pool of 1000+)
Awarded Fiddler Innovation Undergraduate Student Fellowship
Awarded Omron Electrical Engineering Scholarship (awarded to two students out of a pool of 1000+)

EXPERIENCE

IBM Center for Cognitive Computing Systems Research   *May 2019 to August 2019*
Software Engineering Intern   Champaign, IL
- Implemented supervised and unsupervised learning algorithms for classification and clustering on radar data.

Beckman Institute for Advanced Science and Technology   *January 2019 to Present*
Undergraduate Research Assistant   Champaign, IL
- 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   *January 2018 to Present*
Undergraduate Research Assistant   Champaign, IL
- Modified the WaveNet architecture to outperform the most recent efforts in ECG de-noising.
- Designed and implemented a convolutional neural network which surpasses the state-of-the-art in heart condition prediction based on ECG signals.

ACM – Special Interest Group for Artificial Intelligence   *August 2018 to Present*
Co-Chair   Champaign, IL
- Created and delivered content (Logistic Regression, classifying MNIST, etc.) using Tensorflow, PyTorch, and Keras to teach beginners the fundamentals of Deep Learning.

Elyah   *July 2018 to August 2018*
Machine Learning Intern   Tokyo, Japan
- Implemented a Convolutional Siamese Network from scratch for Facial Recognition using Keras and Tensorflow which had an accuracy of about 80% in Facial Identification.
- Using the Labelled Faces in the Wild Dataset, implemented a Deep Convolutional Generative Adversarial Network (DCGAN) to produce realistic faces.

PROJECTS

Neural Networks from Scratch   github.com/arjung128/neural-networks-from-scratch
- Implemented multi-layer Deep Neural Networks and a Convolutional Neural Network from scratch using only NumPy for its mathematical capabilities.

PUBLICATIONS

- Text Embedding Bank Module for Detailed Image Paragraph Captioning
  Zack Shen*, **Arjun Gupta***, Thomas Huang
  Submitted to International Conference on Learning Representations (ICLR) 2020
- Deep Learning for Cardiologist-level Myocardial Infarction Detection in Electrocardiograms
  Arjun Gupta, Eliu Huerta, Issam Moussa
  Submitted to Association for the Advancement of Artificial Intelligence (AAAI) 2020