Jian Xu

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Education

Northwestern University Expected: Dec. 2019

Master of Science in Electrical Engineering

GPA: 3.67/4.0

Relevant course: Machine learning, Optimization techniques for machine learning, Deep learning, Advanced computer vision, Connected and autonomous vehicle.

Beijing Institute of Technology (BIT) Jun. 2018

Bachelor of Engineering in Electrical Engineering

Relevant courses: Probability and statics, Pattern recognition, Data structure etc.

Skills

Programming Language: Python, C#, HTML, CSS, Java Script, Matlab, C++, C, PHP, Java, Assembly

Development Environment: Anaconda, Visual Studio, Matlab, Android Studio

Tool Kits: PIL, skimage, Numpy, Autograd, OpenCV, Cuda

Framework: Pytorch, TensorFlow, Keras, MXNet, Caffe, Ionic

Research Experiences

Institute of Automation, Chinese Academy of Sciences Jul. 2017-June. 2018

Deep Learning Algorithm Intern, Computer Vision *Beijing, China*

- Conducted extensive research into problems of Object Detection, Image Super-Resolution, Domain Adaptation, and Data Augmentation and formed a good understanding of ConvNets.
- Studied and implemented theories and codes of state-of-the-art networks such as Faster R-CNN, Mask R-CNN, YOLO v2, SRCNN, VDSR, DRCN, SRGAN, Pix2Pix etc.
- Worked with open datasets of Pascal VOC, COCO, Cityscapes, SVHN, and label tools such as LabelImage and LabelMe.
- Adapted networks to achieve better performance in real-life problems and accumulated experience with optimizations in deep learning and model training.
- Generated synthetic samples with Generative Adversarial Network and wrote data augmentation scripts to both expand and diversify data sets, resulting in more effective training processes and models more robust to various noises such as occlusion etc.

Internship Experiences

Shanghai Nn-home Software Co., Ltd. Jan. 2017-Mar. 2017

Software Engineer Intern, App Prototyping *Shanghai, China*

- Built an App prototype for product display, which covers basic human-computer interaction activated by operations such as scrolling, tapping etc.
- Programed with web language (HTML, CSS, Agular JS etc.) within the frame of Ionic.

Project Experiences

Medical Aiding System Sept. 2018-Dec. 2018

Team Leader

- Established a feature extracting and classification system based on text information describing patients' symptoms with linear classification, suggesting from which hospital department to seek help.

Paper Classifier May 2018-June 2018

Team Assistant *Beijing, China*

- Adopted pre-trained word vector to classify papers into different given categories based on their titles, key words and abstracts in text form.

Text Based Mood Classifier March 2017- June 2017

Team Leader *Beijing, China*

- Used the Bayes classifier to successfully classify people's inclinations towards positive, negative, and normal based on their conversation contexts; achieved pleasing results.