YU ZENG

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OBJECTIVE

To obtain a hands-on position developing and optimizing image processing systems

EDUCATION

Stanford University, Stanford, CA — expected 2020
Master of Science
Department of Electrical Engineering

Shenzhen University, Shenzhen, China — 9/14 - 6/18
Bachelor of Engineering
School of Biomedical Engineering

RELEVANT COURSEWORK

Image Processing	Computer Vision	Linear Dynamical Systems
Machine Learning	Principles of Medical Imaging	Computer Graphics (ongoing)

COURSE PROJECTS

Food Recommendation System — 9/18 - 12/18

· Worked on a three-person team to develop algorithms on recommending Chinese dishes intelligently
· Originally crawled recipes from a public website by efficient multithreading process on cloud servers
· Designed and programmed several ideas experimentally via positive and effective communication

Standard Panel Localization and Classification — 10/17 - 12/17

· Accomplished improved SSD & RetinaNet to recognize standard panel in prenatal ultrasound
· Trained and classified into 6 classes and each has a positive and negative category
· Improved the data loader to deploy ultrasound frames up to 100fps in Titan X

Contour Detection in Corneal Video — 6/17 - 9/17

· Implemented an automatic algorithm which provides a stable functional measurement of corneal contour
· Proposed a novel image augmentation approach by on-the-fly sinusoidal transformation
· Strengthened the online training through adding the previous prediction into the current input pipeline

EXPERIENCE

Computer Vision Algorithm Engineer Intern — 12/17 - 5/18
Tencent, Shanghai, China

· Submitted a patent about fusing different descriptions of vehicle key points for data augmentation
· Successfully aligned the pruned detection model (RefineDet) from Caffe to TensorFlow in terms of layer
· Employed human pose relating techniques to vehicles and implemented algorithms on main frameworks
· Learned the pipeline from acquiring data to training models and iteratively optimization in industry

TECHNICAL STRENGTHS

Computer Languages	Python, C/C++, MATLAB
Software & Tools	PyTorch, TensorFlow, Caffe, Jupyter, HTML, Jekyll