WILL CHEN

willchenyh.github.io

Looking for internship opportunities in data science and machine learning

EDUCATION

06/2017	B.S. Electrical Engineering	University of California, San Diego	GPA: 3.5/4.0
06/2019	M.S. Machine Learning and Data Science	University of California, San Diego	GPA: 3.9/4.0

RELEVANT COURSES

- Neural Networks
- Statistical Learning
- Linear Algebra
- Probability
- Data Structures
- Software Tools and Techniques

SKILLS/QUALIFICATIONS

- Proficient in Python, MATLAB
- Experience with Keras, Caffe, TensorFlow, SQL, OpenCV, Linux
- Machine learning tools: Scikit-learn, Pandas, NumPy, Matplotlib, Bokeh

EXPERIENCES

Machine Learning Intern, AV Lab, San Diego (07/17 – 09/17)

- Researched and learned various unsupervised clustering techniques
- Applied clustering methods and Recurrent Neural Networks on astrophysical data

Research Assistant, Statistical Visual Computing Lab, UCSD (01/17 – 09/17)

- Collected over 12,000 plankton images both from ocean cameras and in the lab
- Classified plankton images using Convolutional Neural Networks on taxonomical levels and achieved above 90% accuracy
- Fine-tuned AlexNet, with pre-trained ImageNet weights, on Caffe platform for classification tasks
- Extracted latent variables from neural networks and used SVM for classification
- Created a plankton pose predictor by modifying AlexNet with regression layers

Teaching Assistant, Electrical and Computer Engineering Department, UCSD (09/16 – 12/17)

- Wrote detailed instructional materials on introductory Python and computer vision programs
- Led class discussions on deep learning applications in computer vision

Research Assistant, Cleveland Lab, Ludwig Institute for Cancer Research (05/16 – 12/16)

- Processed microscope images with OpenCV to locate and count neuromuscular junctions
- Wrote Python programs to analyze over 5,000 images, and applied various techniques on images, including thresholding and filtering, to reduce false positives, making results more accurate

PROJECTS

Face Recognition System Prototype (06/17)

- Trained a VGG16 network with transfer learning in Keras using online and personal face data
- Established a system to autonomously detect faces using OpenCV, and fetch and send data between a Raspberry Pi and remote GPU

Visualization on Flight Delays (10/17)

- Cleaned, organized and visualized flight delay data from Department of Transportation website

House Price Prediction (12/17)

- Processed data, and applied linear, tree-based and stacked models for prediction

LEADERSHIP

Vice President External, Institute of Electrical and Electronic Engineers (IEEE), UCSD (05/16 – 05/17)

- Led weekly internal meetings, provided oversight to officers, helped managing responsibilities including sponsorship applications, event logistics, and website maintenance, resulting in the organization's effective operation