Ting-Hsuan Chao (Joel)

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EXPERIENCE

Baidu Inc. - Senior NLP Engineer *Sep. 2018 - now*
· Japanese website recommendation system by Elasticsearch and CTR prediction
· Input method editor Emoji prediction by language modeling
· Increase neural conversation diversity by maximizing mutual information
· Research Japanese word embedding methods and leverage in subtasks to improve performance

Appier Inc. - Machine Learning Scientist *May. 2016 - Aug. 2018*
· Large-scale multi-languages user topic module from Spark, AI algorithm, database to APIs
· Research on Chinese natural language understanding
· Scalable and robust machine learning ensemble framework
· Real-time user purchase intent prediction by RNN
· Automatic advertisement bidding bot by Reinforcement Learning
· Data augmentation by Generative Adversarial Networks for cross device user identification

National Taiwan University - Research Assistant *Aug. 2015 - Mar. 2016*
· Advanced research on deep learning compression and speedup

Hewlett-Packard, Inc - Software Engineer Intern *Jul. 2012 - Jun. 2013*
· Develop and maintain softpaq checking tool, wireless diagnose tool, and web service APIs

EDUCATION

National Taiwan University *Sep. 2013 - Jul. 2015*
M.S. in Computer Science & Information Engineering
Communications and Multimedia Laboratory (CMLAB), MiRA Group
Advisor: Winston H. Hsu

National Taiwan University *Sep. 2009 - Jul. 2013*
B.S. in Electrical Engineering

PUBLICATIONS

· Ting-Hsuan Chao, Yen-Liang Lin, Yin-Hsi Kuo and Winston H. Hsu, "Scalable Object Detection by Filter Compression with Regularized Sparse Coding," CVPR 2015. (Full paper)
· Wei-Tsung Lin, Ting-Hsuan Chao, Jian-Min Wu, Tian-Huang Su, "Predict Emoji Combination with Retrieval Strategy", ACM Multimedia 2015. (Short paper)
· Yu-Hsiu Chen, Ting-Hsuan Chao, Yen-Liang Lin and Winston H. Hsu, "Filter-Invariant Image Classification on Social Media Photos", ACM Multimedia 2015. (Short paper)
· Wei-Tse Sun, Ting-Hsuan Chao, Yin-Hsi Kuo and Winston H. Hsu "Photo Filter Recommendation by Category-Aware Aesthetic Learning", IEEE Transactions on Multimedia 2017. (Journal paper)
· Wen-Yu Lee, Yin-Hsi Kuo, Peng-Ju Hsieh, Wen-Feng Cheng, Ting-Hsuan Chao, Hui-Lan Hsieh, Chieh-En Tsai, Hsiao-Ching Chang, Jia-Shin Lan, Winston Hsu, "Unsupervised Latent Sub-events Discovery based on Multi-content and Human Activities Analysis for Diverse Event Summarization", ACM Multimedia 2015. (Grand Challenge)

· Chun-yen Yeh, Yu-Chuan Su, Hsin-Fu Huang, Ting-Hsuan Chao, Sebastian Agethen, Winston H. Hsu, "Low-Bitrate and Online Mobile Video Classification", ICCE 2016. (Short paper)

ACADEMIC EXPERIENCE

· Reviewer for IEEE Transactions on Multimedia (TMM)
· Poster Presentation in CVPR 2015, Boston, USA
· Poster Presentation in ACM Multimedia 2015, Brisbane, Australia

PROJECTS

Keras - Contributor
Deep Learning ◇ Tensorflow ◇ Theano ◇ Python
A high-level neural networks API, written in Python. Commit over 600+ lines, including a image preprocessing module, a locally connected layer and bug fixes. Answer 140+ issues and resolve 120+ of them.

Kaggle - National Data Science Bowl
Deep Learning ◇ Caffe ◇ CNN ◇ Computer Vision
Learn to recognize plankton by training convolutional neural networks. Rank $51^{th}(4.9\%)$ in competition.

Kaggle - Carvana Image Masking Challenge
Deep Learning ◇ Keras ◇ Image segmentation ◇ Computer Vision
Learn to segment car from background by training fully convolutional neural netword. Blonze plate.

HackNTU - WhosDrive
Car Camera Recorder ◇ Car Number Plate Detection ◇ Android
A mobile/web application devoted to solve traffic problem by automatically detecting car plate number and reporting dangerous drivers to our database. Also, it can perform real-time notification of dangerous car's approaching.

National Taiwan University Hosipital - Swallowing Analysis
Object Tracking ◇ SVM ◇ MATLAB ◇ Computer Vision
Analyze swallowing function of patients by tracking Hyoid bone in X-ray photos.

Flora
ML ◇ OpenCV ◇ Android ◇ Computer Vision
A mobile application able to automatically recognize breed of a given flower.

ScoreMaster
Android ◇ Camera ◇ Education
An online Q&A platform for junior/senior high school students. Teachers can answer questions and earn money on it.

TECHNICAL STRENGTHS

· Programming Language: Python, Scala, C++, JAVA, MATLAB, javascript
· Framework: Keras, TensorFlow, PyTorch, Spark, Caffe, Android, node.js