

Benjin Zhu

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EDUCATION

SOUTH CHINA UNIVERSITY OF TECHNOLOGY

B.E. IN SOFTWARE ENGINEERING

Sep. 2014 - Jul. 2018 | GuangZhou, CN
Cum. GPA: 3.6/4.0
Received SCUT ScholarShip in 2015, 2016 and 2017

COURSEWORK

UNDERGRADUATE

Operating System
Computer Networks
Compiler
Data Structures and Algorithms
Machine Learning
Data Mining
Artificial Intelligence
Distributed Intelligent Software
Parallel Computing
Computer Vision

SKILLS

LANGUAGES

Proficient:
C++ • Python
Familiar:
Java • Swift

FRAMEWORKS

Tensorflow • MXNet • OpenMP • MPI • CUDA • OpenCV • iOS • MongoDB

LINKS

Github:// [poodarchu](#)
LinkedIn:// [poodarchu](#)

INTERNSHIPS

ALIBABA | INTERN RECOMMENDATION ALGORITHM ENGINEER

Nov. 2017 – Feb. 2018 | HangZhou, China

- Participating in design and development of YouKu's video recommendation models. Build recommend pipeline on MaxCompute.
- Feature Engineering from user logs, using features like FP-growth, ctr, vv, ts and embedding methods like Word2Vec and Fasttext to train GBDT, LR and DNN models ON PAI(integrate Tensorflow). Then use the above method to do item2show, show2show recommendation.

DIDI AI LAB | SPEECH RECOGNITION RESEARCH INTERN

Jul. 2017 – Nov. 2017 | Beijing, China

- Engaged in voice recognition algorithms, speech recognition engine and related product development. Investigate using domain adaptation to improve pipeline's regularization capability.
- Keep track of cutting-edge outputs and integrate into our exist speech recognition models, such as dann, segan.

PROJECTS

INDOOR SCENARIO IMAGE SEGMENTATION | TENSORFLOW

Dec. 2017 - Mar. 2018

- Design an Encoder-Decoder architecture, using atrous spatial pyramid pooling (ASPP) to robustly segment objects at multiple scales ON PASCAL VOC 2012 and MS COCO.
- Use CRF to improve outputs of the CNNs. Use indoor scenario datasets to refine the encoder using transfer learning.

DOMAIN ADVERSARIAL SPEECH RECOGNITION WITH LSTM AND CNN | IML

Jul. 2017 - Sep. 2017

- Add domain adversarial layers to our speech recognition pipeline.
- Use gradient reversal layer to subtract domain specific labels from source domain, improve regularization. WER drops 2% approximately.

DEEP AUDIO-BASED MUSIC RECOMMENDATION USING CNNs | MXNET

Jul. 2016 - Jul. 2017

- Collect MSD, EchoNest Taste Profile, and 7Digital Audio Clips Datasets.
- Use a CNN(4 [ConvLayer+ReLU+Maxpooling]s + 3 Fully Connected Layers) to extraction frame-level features of audio signals.
- Improve the accuracy of the music recommendation by positioning target songs in collaborative filtering latent space(40 dims).

UIS-LDA: RECOMMENDATION WITH TOPIC MODELS | JAVA

Oct. 2015 - Oct. 2016

- Implement our modified LDA model using mutual following relationships on Weibo and Twitter datasets Using 'GPU' to improve weights of mutual pairs.
- Convert topics into communities, then perform matrix factorization to make recommendations.

PUBLICATIONS

- Ke Xu, Xushen Zheng, Benjin Zhu, Yi Cai, Huaqing Min, "Improving User Recommendation by Extracting Social Topics and Interest Topics of Users in Uni-Directional Social Networks," Knowledge-Based Systems 140, 120-133.