

LUCAS XU

✉ xulu0620@gmail.com · 🌐 <https://github.com/lucasxu> · 📄 <https://lucasxu.github.io/blog>

EDUCATION

Huazhong Agricultural University	Master	ML/CV	2016.09 – 2019.06
Hubei University of Technology	Bachelor	MIS	2011.09 – 2015.06

EXPERIENCE

Blibee 2019.02 – Present

Store Intelligent Decision-making Department

Computer Vision Algorithm Engineer

- Design and implementation of real-time camera monitoring system, independently complete the computer vision system design (device detection + image quality + super resolution + attribute recognition + strategy design + interface design + online serving)
- Photo capturing compliance verification (shelf pose + integrity detection + image quality + glass detection) algorithm design and online serving system implementation
- Design and implementation of *display consistency check* system (detection + image quality + product ReID) and stream computing platform (based on Redis + MongoDB + FastAPI + Flask) for real-time inspection of Blibee convenience store display, to improve store performance rate and user purchase experience
- Research on *model compression (Knowledge Distillation/Network Pruning)* and *Active Learning*
- Developing a web-based system for efficient image retrieval/ReID annotation (PyTorch + Django + Faiss), related algorithm components (Softmax/CenterLoss/ASoftmaxLoss/ArcLoss/BNNeck/RandomErasing) are all supported

DiDi 2018.09 – 2019.01

Security Product & Technology Department

Deep Learning Intern

- According to the safe travel scenario, I was responsible for related work about information alignment, data access and anti-cheating models, such as scenery classification, license recognition, completeness detection
- Improvement on facial beauty prediction models, with SOTA performance on mainstream benchmark datasets. Code & paper are open-sourced at ComboLoss¹
- Patent wiring about safety products (age/gender/facial beauty/smoking in the car/calling during driving/identification scheme of not wearing seat belt, etc.)

Aisino Corporation 2015.06 – 2016.06

Financial Software Department

Java Software Engineer

- Development of multi-thread POI information extraction system based on Ctrip, MeituanDianPing and AMap
- Analysis and visualization of million-level datasets, support offline product localization with data-driven methods

RESEARCH

Publications

- **Xu L**, Fan H, Xiang J. Hierarchical Multi-Task Network For Race, Gender and Facial Attractiveness Recognition[C]//2019 IEEE International Conference on Image Processing (ICIP). IEEE, 2019: 3861-3865. (Oral. CCF C, EI)
- Fan H, **Xu L**, Xiang J. Complementary Siamese Networks for Robust Visual Tracking[C]//2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP). IEEE, 2019: 2247-2251. (CCF B, EI)
- **Xu, Lu**, Jinhai Xiang, and Xiaohui Yuan. "CRNet: Classification and Regression Neural Network for Facial Beauty Prediction." Pacific Rim Conference on Multimedia (PCM). Springer, Cham, 2018. (CCF C, EI)
- * Reviewer of Elsevier Journal <Neurocomputing> (SCI, IF=4.072)
- * Reviewer of <Indonesian Journal of Electrical Engineering and Computer Science> (EI)
- * Software Copyright: Hot Topic Tracking and Detection System V1.0 (No.2015SR165186)

PERSONAL ADVANTAGES

- English. (CET-6: 575/710). Proficiency in reading and writing, able to complete the writing of patents and academic papers, to enhance the technical influence of the team
- Algorithm. Solid background in deep learning, with strong research and engineering ability
- Programming. Proficiency in PyTorch/TensorFlow/Scikit-Learn/OpenCV and Python/Java/SQL
- Others. Proficiency in MongoDB/MySQL/Oracle/Redis and Flask/Django/FastAPI. With rich experience in full-stack deep learning (business modeling/technology selection/algorithm design/model training/serving deployment)

¹<https://arxiv.org/abs/2010.10721>