

# LUCAS XU

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## EDUCATION

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

## EXPERIENCE

<b>Blibee</b>	2019.02 – Present
Store Intelligent Decision-making Department	Computer Vision Algorithm Engineer
<ul style="list-style-type: none"><li>Design and implementation of anti-cheating vision systems based on camera monitoring under low-resolution video</li><li>Photo capturing compliance verification (shelf pose + integrity detection + image quality + glass detection) algorithm design and online serving system implementation</li><li>Design and implementation of <i>display consistency check</i> system (detection + image quality + commodity ReID) to improve store performance rate and user purchase experience</li><li>Building production recognition stream computing platform (based on Redis + MongoDB + FastAPI + Flask) for real-time inspection of Blibee convenience store display</li><li>Research on <i>model compression (knowledge distillation/network pruning)</i> and <i>active learning</i> with application to smart retail usecase</li><li>Developing a web-based system for efficient image retrieval/ReID annotation (PyTorch + Django + Faiss)</li></ul>	
<b>DiDi</b>	2018.09 – 2019.01
Security Product & Technology Department	Deep Learning Intern
<ul style="list-style-type: none"><li>License image quality recognition (P=93.15%, R=98.35%) and scene recognition (P=99.89%, R=99.90%)</li><li>License type recognition (R=99.77%, R=99.76%) and completeness recognition (P=99.80%, R=99.81%)</li><li>Facial beauty prediction with 0.89 Pearson Correlation</li><li>Write 21 patents related to safety products</li></ul>	
<b>Aisino Corporation</b>	2015.06 – 2016.06
Financial Software Department	Java Software Engineer
<ul style="list-style-type: none"><li>Development of multi-thread POI information extraction system based on Ctrip, MeituanDianPing and AMap</li><li>Analysis and visualization of million-level datasets, support offline product localization with data-driven methods</li></ul>	

## 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**)
- Xu L**, Xiang J, Wang Y, et al. Data-Driven Approach for Quality Evaluation on Knowledge Sharing Platform[C]//2019 International Conference on Machine Learning and Cybernetics (ICMLC). IEEE, 2019: 1-6. (**EI**)
- Xu L**, Xiang J. ComboLoss for Facial Attractiveness Analysis with Squeeze-and-Excitation Networks[J]. arXiv preprint arXiv:2010.10721, 2020.

### Professional Service

- Reviewer of Elsevier Journal <Neurocomputing> (**SCI, IF=4.072**)
- Reviewer of <Indonesian Journal of Electrical Engineering and Computer Science> (**EI**)

### Projects

- XCloud: Design and Implementation of AI Cloud Platform with RESTful API Service <sup>1</sup>
- Software Copyright: Hot Topic Tracking and Detection System V1.0 (No.2015SR165186)

<sup>1</sup><https://github.com/lucasxlu/XCloud.git>

## PERSONAL ADVANTAGES

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