

Wenxiang Yang

SEEKING FOR INTERNSHIP

Shanghai · Tongji University · Jiading campus · Computer Science
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"I have sworn the Programmer's Oath."

aws  certified  Solutions Architect - Associate

Education

Tongji University

COMPUTER SCIENCE

- GPA 4.6/5

Shanghai

Sep. 2017 - Aug. 2021

MOOC

- Deep Learning: USF • Fast.ai Practical Deep Learning for Coders; Stanford • CS231n: Convolutional Neural Networks for Visual Recognition
- Machine Learning: USF • Fast.ai Introduction to Machine Learning for Coders 2018; Coursera/Stanford • Machine Learning
- Distributed System: MIT • 6.824: Distributed Systems; AWS • AWS Certified Solutions Architect
- Misc: Coursera/University of Washington • Programming Languages, Part A/B/C; Stanford Lagunita • Algorithms: Design and Analysis

Tongji University

CIVIL ENGINEERING

Shanghai

Sep. 2016 - Aug. 2017

Research and Skills

CVPR 2020 (under review)

Vancouver, Canada

CO-AUTHOR

Dec. 2019

- Guided by two Facebook research scientists, I proposed a loss function term for image segmentation that regulates the total variance around the gaps and fragments to reduce topological errors such as broken boundaries and fragments.
- Over 300 experiments show 2.5–4.3% connectivity improvements for curvilinear segmentation tasks and 7.0-14.6% fragment reduction in polygon and polyhedron segmentation tasks.

CVPR 2018 Workshop, DeepGlobe Road Extraction Challenge

Salt Lake City, Utah, United States

AUTHOR

Jun. 2018

- Ranked 7th/85. Paper: Stacked U-Nets with Multi-Output for Road Extraction was published at CVPR DeepGlobe Workshop 2018
- Proposed a multi-output stacked U-Net model. Addressed sample imbalance problem using a hybrid loss function. Post-processing methods, including road map vectorization and shortest path search, helped improve recall.

Civil engineering department


Tongji University

AUTHOR

May. 2019

- Tunnel Boring Machine (TBM) parameter and rock mass prediction using multi- input and output AWD-LSTM.
- Processed and augmented raw time series data consisting of 4.1 billion samples. Introduced the AWD-LSTM model to TBM parameter and rock mass prediction task for the first time, outperforming random forest by 13%.

SKILLS

- Programming Languages: (Professional) Python | (Proficient) C++ • JavaScript • Golang • Bash Script | (Familiar) Java • Matlab • SQL
- Deep Learning Frameworks: (Proficient) PyTorch • Fastai | (Familiar) Tensorflow • Keras
- Misc: AWS • Alibaba Cloud • Spark • Kubernetes • Docker • RDB • NoSQL + Redis • MapReduce • React • React Native • Vue •  • Git • Vim

Professional Experience

Alfasommet

Beijing

VP/MACHINE LEARNING ENGINEER/SOLUTION ARCHITECT

Aug. 2019 - Dec. 2019

- Built a recommendation system that match users based on tags, from data collection to real-time inferencing, improving recall to 60% compared to the 30% of content-based approaches. Used word embedding to recommend tags proactively.
- Created data visualization reports of user behaviors for the CEO.
- Designed and deployed the backend architecture on AWS, and was recognized as an AWS certified solution architect.
- The data product has raised 5 million CNY in angel round and 12 million CNY in pre-A round.
- Interviewed mobile app and backend javascript developers.

Transwarp

Shanghai

DATA MINING INTERN

Jul. 2019 - Aug. 2019

- Re-implemented a terabyte-scale hierarchical clustering program using Spark, achieving over 5x speed up.

UISEE

Shanghai

DEVOPS INTERN

Jul. 2018-Sept. 2018

- Containerize and deploy services under production environment. Participated in an OpenStack cluster rescue and recovery.

Hackathons

PARTICIPANT

- 2019 DoraHacks Hackathon Microsoft startup track **3rd place**; Bosch track **2nd place**
- 2018 hackShanghai **6th place**; FC Bayern Hackdays Adidas Challenge **Invited to Munich**

CERTIFICATES

- AWS Certified Solutions Architect - Associate ([Link to badge - http://bit.ly/wenxiang-saa](http://bit.ly/wenxiang-saa))

OPEN SOURCE ACTIVITIES

- Fastai · CRF as loss PyTorch · Adversarial Structure Matching Loss

2018 ACM Turing Celebration Conference

LEADER OF PHOTOGRAPHY TEAM

Shanghai

May, 2018

ASCE Canoe Team

MEMBER

Civil Engineering Department

May, 2017 - Oct. 2017

Pan Yangtze River Delta Model United Nations

PARTICIPANT

Zhejiang University

Nov. 2016

Association of Tongji University

DEPUTY LEADER OF PHOTOGRAPHY DEPARTMENT

Shanghai

Sep. 2016 - Sep. 2017