

JINGYUN JIA

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EDUCATION

Florida Institute of Technology

August 2018 - December 2022

Ph.D. in Computer Science, Department Of Computer Engineering And Sciences

GPA: 4.0/4.0

Area: Representation learning; Self-supervised learning; Open set recognition

University of Edinburgh

2013-2014

MSc. in Informatics, School of Informatics

Area: Machine learning

Xiamen University

2009-2013

BEng. in Software Engineering, Department of Software Engineering

Area: Digital media

EXPERIENCE

Meta (Facebook)

Menlo Park, CA

Research Scientist

Dec 2022

- Offer Rescinded.

Baidu USA

Remote

Research Intern

Aug 2021-Dec 2021

- The research group focuses on managing and optimizing artificial intelligence and machine learning algorithms and workloads on GPU, improving computing efficiency and sustainability.
- Participated in large-scale AI heterogeneous computing cluster/platform design and acceleration.
- Participated in AI workload profiling, analyzing, tuning, and optimization on GPU.

Siemens

Remote

Machine Learning Intern

May 2021-Aug 2021

- The research team focuses on anomaly detection in stamped surfaces with deep learning.
- Proposed and implemented self-supervised learning techniques.
- Implemented background extraction for collected images.
- Containerized model inference and dashboard for results visualization.

Foursquare (previous Factual Inc.)

Los Angeles, CA

Data Scientist Intern

May 2019-Aug 2019

- The team focuses on clustering places data with machine learning models.
- Improved model performance on particular data by developing and deploying an oversampling workflow.
- Designed and developed new model performance evaluation metrics for calibrating sampling biases.
- Improved model performance by introducing new features.

Ctrip

Shanghai, China

Algorithm Engineer

Nov 2017-Jul 2018

- Designed and deployed an intelligent recommender system for hotel order page (web), optimized user experience measured by user visits and orders.

- Implemented a real-time hotel recommender system for the listing page.
- Boosted ROI by designing a hotel bidding algorithm and reduced labor hours by implementing an auto bidding workflow.

Foursquare (previous Factual Inc.)

Software Engineer, Data

Shanghai, China

Sep 2015-Oct 2017

- Led geocoding team, designed and deployed a density-based geocodes summarization algorithm, which improved geocodes accuracy by 50 points total for 50 countries.
- Engaged in the proposals, research, experiments, and developments of new geopulse and geo-fence products.
- Improved model performance by introducing and implementing new models and features.

PUBLICATIONS AND PATENTS

- Novel Category Discovery in Open Set Recognition
Current work
J Jia, PK Chan
- Feature Decoupling in Self-supervised Representation Learning for Open Set Recognition
Under Review
J Jia, PK Chan
- Representation Learning with Function Call Graph Transformations for Malware Open Set Recognition
Proc. Intl. Joint Conf. on Neural Networks (IJCNN), 2022.
J Jia, PK Chan
- Self-supervised Detransformation Autoencoder for Representation Learning in Open Set Recognition
Proc. Intl. Conf. Artificial Neural Networks (ICANN), 2022.
J Jia, PK Chan
- MMF: A Loss Extension for Feature Learning in Open Set Recognition
J Jia, PK Chan
Proc. Intl. Conf. Artificial Neural Networks (ICANN), 2021.
- Hurricane Damage to Interior and Contents in Mid/high-rise Buildings due to Wind-driven Rain Ingress
J Pinelli, Z Wei, N Aghli, **J Jia**, K Gurley
Proc. European Safety and Reliability Conference (ESREL), 2021.
- AutoEdge: An automated tool for easy deployable edge AI
Invention Disclosure with Siemens, 2021
- CollabEdge: A distributed learning framework at the edge
Invention Disclosure with Siemens, 2021

PROJECT EXAMPLES

Implementing hurricane risk estimation model using Python Dask.
 Facial expressions recognition using convolutional neural networks.
 Topological cluster of NYC wifi hotspots using ToMATo algorithm.
 Hand drawn doodle recognition on micro-controller using deep learning.
 Sentimental analysis for hotel reviews using BiGRU and attention mechanism.
 Airbnb Kaggle challenge: Hotel Booking Prediction using XGBoost.
 Building real-time hotel recommender system using deep learning.
 Building hotel price bidding system using the Random Forest algorithm.
 Bus arrival time prediction using Support Vector Machine and Kalman Filter.
 Pingpong game development using OpenGL.

AWARDS

2019 Google Tensorflow2.0 hackathon winner
2017 Factual hackathon winner
2013 Xiamen University Academic Scholarship
2012 Xiamen University Academic Scholarship

RELEVANT COURSES

Deep Learning, Artificial Intelligence, Machine Learning, Data Mining, Probabilistic Modelling and Reasoning, Pattern Recognition. Formal Language and Automata, Reinforcement Learning, Advanced Database, Data Structure and Algorithm Analysis

SKILLS

Deep Learning, Machine Learning, Data Science, Anomaly Detection, Big Data Processing, Database
Programming: Python, Java, Scala, SQL
Tools: Tensorflow, Pytorch, Spark, Hive, Redis, Linux, MongoDB, PostGIS