Xin Gao

Machine Learning Engineer · Researcher
San Jose, California
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Skills

Languages Python · R · SQL · Bash · C++ · Java · Matlab · JavaScript · HTML · LaTeX
Tools NumPy/Pandas/Matplotlib · Tensorflow/Keras · Scikit-learn · OpenCV · Docker · Unix · Git · Android Studio · Tableau · Qt
Knowledge Deep Learning · Machine Learning · NLP · Computer Vision · Software Engineering

Education

New Jersey Institute of Technology — *Newark, NJ*
Ph.D. Computer Science (Research: Deep Learning, Machine Learning) — *2012 - 2018*

Nankai University — *Tianjin, China*
B.E. Computer Engineering — *2008 - 2012*

Work Experience

SAIC Innovation Center — *San Jose, CA*
Machine Learning Engineer — *Nov 2018 - present*
- Designed a deep learning model for autonomous vehicle for detecting driver sleepiness based on sensor data from ECG, steering wheel and video cameras. For dataset annotation used EEG data.
- Designed a deep learning model for intelligent vehicle AC control system.
- Implemented a deep learning model for speech recognition system based on NLP methods.

NIO — *San Jose, CA*
Machine Learning Engineer Intern — *Jun 2017 - Aug 2017*
- Developed a real-time FaceID system for driver and passenger recognition for self-driving car. Achieved a precision of 96.65% at 23fps.
- Implemented the system with C++ based on MTCNN, FaceNet and SVM methods to get a speed 5 times faster than python version.

HERE Technologies — *Chicago, IL*
Data Science Intern — *Jun 2016 - Sep 2016*
- Designed algorithms for predicting traffic congestions on intersections (filed 2 patents).
- Statistical and quality analysis on Signal Phasing and Timing data with R and Tableau.
- Implemented a SPaT Distributed Computing Platform with Kafka and AWS EC2.

Futurewei Technologies — *Bridgewater, NJ*
Research Intern — *Jun 2014 - Aug 2014*
- Designed algorithms for virtual network embedding in Software Defined Network in R and C++ for Shannon Research Lab.
- Improved the network throughput by parameter tuning to provide better bandwidth allocation for large flows.

Selected Publications

2018	**Xin Gao**, Deep learning methods for mining genomic sequence patterns	*Ph.D. Dissertation*
2018	**Xin Gao, et al.**, DeepPolyA: a convolutional neural network approach for polyadenylation site prediction	*IEEE Access*
2018	**Xin Gao, et al.**, tRNA-DL: A Deep Learning Approach to Improve tRNAscan-SE Prediction Results	*Human Heredity*
2018	**Xin Gao, et al.**, Deep Learning for Sequence Pattern Recognition	*IEEE ICNSC*
2014	**Xin Gao, et al.**, Detection of transportation mode based on smartphones for reducing distracted driving	*ACM MobiCom*
2014	**Xin Gao, et al.**, ARPP: An Augmented Reality 3D ping-pong game system on Android mobile platform	*IEEE WOCC*

Patents

2019	**US 10,181,263**, Method for Estimation of Road Traffic Condition Using Traffic Signal Data	*HERE*
2018	**US 10,127,811**, Method for Comprehensive Management of Signal Phase and Timing of Traffic Lights	*HERE*
2016	**US 62/395,090 (pending)**, Systems and Methods for User Matching Based on Face Recognition	*NJIT*

Honors & Awards

2018	**Best Conference Paper Finalist**, IEEE International Conference on Networking, Sensing and Control
2014	**1st Place at Data Networking Poster Award**, IEEE North Jersey Advanced Communications Symposium
2011	**1st and 2nd term Scholarship Award**, Nankai University
2008	**Dean's List of Distinguished Students Fellowship**, Tianjin Experimental Middle and High School
2005	**2nd Prize**, National Mathematics Olympiad (middle school level)
2002	**1st Prize Top 10**, National Mathematics Olympiad (primary school level)
2002	**Level 4 Expert Certificate**, National Abacus and Mental Arithmetic Contest