Grace Wang

US Permanent Resident

Curriculum Vitae

+1 (520) 307-9993 (Text & Call)
chaogracewang@gmail.com
chaogracewang
gracewang0827

EDUCATION

The University of Arizona *2014 - 2021(exp.)*
Ph.D. in Economics (GPA: 3.9/4.0)

Georgia Institute of Technology *2020 - 2022(exp.)*
M.S. in Computer Science, Specialization in **Machine Learning**

Renmin University of China *2011 - 2014*
M.S. in Economics (GPA: 3.9/4.0)

Southwestern University of Finance and Economics *2007 - 2011*
B.A. in Economics (GPA: 90/100)

RESEARCH & PROJECT

"Air Traffic and Urban Growth: Evidence from Airline Networks " (Job Market Paper)

This paper investigates the causal effects of air traffic on local economical growth. The results confirm significant positive effects. The mechanism is mainly through labor demand; financial service sectors are the main beneficiary of air traffic growth.

- Big data manipulation and visualization on airline datasets
- K-means clustering machine learning for hub selection

"Impact of COVID-19 on US Housing Market" (Pending)

This study provides quantitatively and visually exploration of COVID-19 effect on US housing metrics. Machine learning techniques are innovatively utilized for market prediction and cluster visualization.

- ARIMA, LSTM, RNN modeling for prediction
- K-means, Gaussian Mixture model for clustering
- Tableau interactive dashboard for visualization

WORK EXPERIENCE

The University of Arizona 2014 - 2020
Sole Instructor, Teaching Assistant

Working cross functionally with operations to make course materials and hold discussions. Course was rated 4.7/5 for effectiveness. TA for 7 different courses. Experience organizing and preparing technical contents. Versatility to communicate clearly with both technical and non-technical audiences.

Grameen Bank 2013
International Program Intern

Evaluating business model and operation; collaborating and identifying new growth and opportunities.

PERSONAL INFORMATION

CITIZENSHIP China, US Permanent Residency
LANGUAGE English (Fluent), Mandarin (Native)

COMPUTER SKILLS

Machine Learning and Deep Learning Implementation
Python (Scikit-learn/ Sklearn, TensorFlow, Keras)

Statistical Analysis, Modeling, Prediction & Optimization
Python (NumPy, SciPy, Pandas), STATA, MATLAB, R, SAS

Big Data Manipulation and Visualization
SQL, Hadoop, Spark, Tableau, Matplotlib, D3.js, ggplot2

COURSEWORK

CSE6242 Data and Visual Analytics, Fall 2020 Gatech
Collecting & visualizing data with D3.js & Tableau, SQLite, Hadoop, Spark and AWS; Scalable PageRank, Random Forest, Scikit-Learn.

CS7646 Machine Learning for Trading, Fall 2020 Gatech
Machine learning algorithms implementation for trading: KNN, regression trees, Decision Tree, Random Tree, Bootstrap Aggregating learner and Q-Learner (Reinforcement Learning).

Machine Learning, Stanford University Certificate
Implement SVMs for spam classifiers, clustering & PCA to compress images, anomaly detection algorithm for network failing servers, collaborative filtering for movie recommendation.

Neural Networks and Deep Learning Certificate
Build, train and apply fully connected deep neural networks to classify planar data and classify cat vs. non-cat pictures.

Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization Certificate
Optimize soccer kicking positions and hiking routes: mini-batch gradient descent, Momentum, RMSprop & Adam, L2 & dropout regularization, batch normalization, gradient checking.

Structuring Machine Learning Projects Certificate
Diagnose and reduce errors in a ML system; apply end-to-end learning, transfer learning, and multi-task learning.

Convolutional Neural Networks Certificate
Implement ConvNet and ResNets for object detection in autonomous driving and facial recognition; use the neural style transfer algorithm to generate novel artistic images.

Sequence Models Certificate
Build and train RNNs, and use GRUs and LSTMs for text generation; apply sequence models to natural language processing (NLP) for text synthesis and audio applications.

Industrial Organization Models; Experimental Economics
Estimate dynamic models of consumer behavior; experience with experimental design and A/B testing.