Jingwei Li

github.com/cqlijingwei

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SKILLS

Data Tools	PySpark, Scala, Tableau, Anaconda, PyTorch, Scikit-learn, TensorFlow
Programming	Java(4 yrs), MySQL(4 yrs), Python(3 yrs), R(3 yrs), JS(3 yrs), MatLab(2 yrs)
Operating Systems	Windows(15 yrs), Mac OS(7 yrs) and Linux(5 yrs) with shell script

EDUCATION

Online Master of Computer Science in Data Science   In Progress
University of Illinois at Urbana-Champaign, Illinois, IL   cGPA: 3.83/4.00
Bachelor of Science (Double Major in Computer Science and Actuarial Science)   Aug 2018
University of Toronto, Toronto, ON   cGPA: 4.00/4.00

WORK EXPERIENCE

Jr Full-Stack Developer-Ministry of Education, North York, ON   May 2018 – Dec 2018

- CRUD data information from databases in Oracle SQL Developer.
- Documented deployments using SVN, Hudson, WinSCP and Jira tickets in Agile work environment.
- Delivered new functions for on-going development of front and backend functions in Spring framework.
- Optimized OSAP administrator service using Java, JavaScript, XML and Jython in Eclipse.

Jr Data Analyst-IESO, Oakville, ON   May 2017 – Aug 2017

- Performed ETL jobs from multiple data sources in Hyperion, Tableau and Excel.
- Arranged and analyzed various data resources regarding to electricity market using VBA.
- Delivered weekly presentation to colleagues and supervisor about past week abnormal issues.
- Produced documentation about abnormal events which electricity generators reported.

CERTIFICATES

- **Big Data and Social Analytics**-MIT, Cambridge, MA   July – October 2016
- **Exam FM, P**-Society of Actuaries   6 April, 20 May 2017
- **Base, Advanced SAS Programming**-SAS Global Certification   14 May, 8 June 2017

RESEARCH EXPERIENCE

Grammatical Error Correction-UIUC, Champaign, IL   Sep 2018 – Dec 2018

- Implemented GEC model with evaluation method of loss function, fluency score and GLEU score.
- Built CNN seq2seq model using deep learning NLP toolkit PyTorch and fairseq.
- Constructed an enhanced interactive model with RESTful API and Web GUI on Azure cloud server.

Researcher-University of Toronto, Toronto, ON   Nov 2017 – May 2018

Machine Learning to Predict Economic Indicators Using Mobile-Phone Data
- Researched about application of call data to social-economic proxy for individual's daily trajectory.
- Optimized selected models by reparameterization to train dataset.
- Matched the expected regression model with the specific dataset by generating actual output with data tools in comparison with expected results.
- Mined dataset value by attempting various models.

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PROFESSIONAL DEVELOPMENT AND PROJECTS

Applied Machine Learning-UIUC, Champaign, IL   Jan 2019 – Present

- Classified diabetes and MNIST images with Cross Validation using Naïve Bayes and Decision Forest.
- Classified adult income dataset with Support Vector Machine using Stochastic Gradient Descent.

Hadoop Platform and Application Framework-UCSD, San Diego, CA   Nov 2018 – Feb 2019

- Wrangled and processed big data with Hadoop streaming commands on Cloudera platform.
- Analyzed quantitatively ABC TV Shows dataset by join using MapReduce framework in Python.
- Generated TV channel viewers value with data curation, cleaning, collection and ETL in PySpark console.

Advanced Bayesian Modeling-UIUC, Champaign, IL   Sep 2018 – Dec 2018

- Utilized R and JAGS for Bayesian Monte Carlo simulation.
- Access Bayesian models through posterior predictive checking with evaluation and comparison.
- Applied hierarchical modeling and regression in a Bayesian framework.

Machine Learning and Data Mining-University of Toronto, Toronto, ON   Jan 2018 – Apr 2018

- Applied face recognition and gender classification by Linear Regression with Cross Validation.
- Implemented handwritten digit classification and face recognition using Deep Neural Networks.
- Identified fake news using Naïve Bayes, Logistic Regression and Decision Tree classifiers.
- Trained bots to play tic-tac-toe by Reinforcement Learning with Policy Gradients using TensorFlow.

Financial Engineering-University of Toronto, Toronto, ON   Sep 2017 – Dec 2017

- Built recombing binomial tree model for European options to hedge GMAB by risk-neutral analysis and replicating portfolio construction in VBA.
- Implemented Newton-Raphson method in fees valuation of VA GMAB in VBA.
- Simulated Monte Carlo Model with Black Scholes formula and stochastic process in Excel.

Machine and Deep Learning-Coursera, Stanford University   Jul 2017 – Dec 2017

- Recognized hand-written digits utilizing one-vs-all logistic regression and backpropagation algorithm.
- Constructed models with various bias-variance properties by regularized linear regression.
- Built a spam classifier using Support Vector Machines.
- Compressed images using K-means clustering algorithm.
- Detected failing servers on a network with the Anomaly Detection algorithm.

Big Data and Social Analytics-MIT, Cambridge, MA   July 2016 – Oct 2016

- Demonstrated the population density distribution in a world map.
- Formed charts to indicate data difference between different countries and regions.
- Illustrated the route frequency which the object of study passed during a recent period differentiated by color in the USA geographic map.
- Predicted the location of people by analyzing the previous location data within specific time intervals on a daily basis.