

Jingwei Li

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EDUCATION

Honours Bachelor of Science in Computer Science and Actuarial Science

University of Toronto, Toronto, ON

Sep 2016 – Aug 2018

Dalhousie University, Halifax, NS

Sep 2015 – Aug 2016

University of Macau, Macau, China

Sep 2013 – Jan 2015

WORK EXPERIENCE

Software Engineer, Cohesity, Toronto, Canada

Sep 2019 – Present

- Built up automation pipeline for registering Virtual Center source, executing protection jobs, cloning Virtual Machines.
- Measured bridge performance by vdbench and fio testcases automation with analytics.

Data Scientist, Alibaba Cloud, Hangzhou, China

May 2019 – Aug 2019

- Built data ETL pipeline to predict future remaining parking space for intelligent parking management system via Graph Convolutional Network.
- Developed a real-time analytical toolset for device error prediction with stream data of various physical models from IoT service, using big data computing and warehousing service on Alibaba Cloud Platform.
- Detected anomaly IoT product data with respect to customer's requirements. Implement correlation analysis between property data and event data of IoT devices.

Int. Software Developer, Solar Panda, Toronto, ON

Mar 2019 – Apr 2019

- Deployed updates and maintained financial payment server using Java, Spring Boot and MySQL.
- Queried, transformed, analyzed real-time data with noise in MySQL.
- Configured Docker VM to generate Asterisk service with Git and linux command.

Jr. Software Developer, Ministry of Education, North York, ON

May 2018 – Dec 2018

- CRUDed data information from SQL databases. Implemented application screening functions in Spring framework and optimized OSAP administrator service using Java, JavaScript, XML and Jython.
- Deployed scheduled builds using SVN, Hudson, WinSCP and Jira tickets in Agile work environment.

Jr. Data Analyst, IESO, Oakville, ON

May 2017 – Aug 2017

- Performed data ETL and analyzed data from multiple sources and types in Hyperion, Tableau, and VBA.
- Conducted anomaly detection in electricity supply data and root cause analysis based on logs and market research; presented weekly across teams.

CERTIFICATES

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

- Developed word tokenizer and implemented convolutional seq2seq model using transfer in PyTorch.
- Constructed an enhanced interactive model with RESTful API and Web GUI on Azure.

Researcher, University of Toronto, Toronto, ON

Nov 2017 – Apr 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 machine learning algorithms to train applied data.

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PROFESSIONAL DEVELOPMENT AND PROJECTS

Practical Statistical Learning, UIUC, Champaign, IL

Aug 2019 – Present

- Predicted sale price of houses given features and probability customers miss payments next month given characteristics of borrower & loan; determined positivity of movie review by sentiment analysis.
- Forecasted sales performance for departments in each Walmart store based on historical data.

Deep Network for NBA 2019 MVP Prediction

Apr 2019 – May 2019

- Collected data from NBA stats web using self-designed python crawler script.
- Predicted NBA 2019 MVP accurately by developing a CNN model with dropout and regularization.

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.

Machine Learning and Data Mining, University of Toronto, Toronto, CA

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, CA

Sep 2017 – Dec 2017

- Built recombining 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.

Financial Analytics-University of Toronto, Toronto, ON

Sep 2016 – Dec 2016

- Scheduled the amortization of a mortgage during the period of 25, 30 years in Excel.
- Analyzed the change in interest value when amortization period changed.
- Evaluated the lump-sum prepayment amount and rate of return under several circumstances.

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.

SKILLS

- **Big Data:** PySpark, Scala, MySQL, Tableau, PyTorch, Sklearn, TensorFlow
- **Programming:** Java(4 yrs), MySQL(4 yrs), Python(3 yrs), R(3 yrs), JavaScript(3 yrs), HTML&CSS, MatLab
- **Framework:** ReactJS, NodeJS, AngularJS, BootStrap, Express, Spring, MyBatis, Django, MongoDB