

Junchi Bin

1325 Aldon Rd, Kelowna, BC
778-215-0328

jb2849.github.com
junchibin@outlook.com

EDUCATION	University of British Columbia (Okanagan) , Kelowna, BC M.A.Sc, Electrical Engineering, Sept. 2016 - Expected Sept. 2018	GPA: 88.9%
	Northern Arizona University , Flagstaff, AZ, USA B.Sc., Electrical Engineering, Aug. 2013 - Aug. 2016	GPA: 3.37
SELECTED PROJECTS	Cloud Enabled Mobile Sensing Agent for Smart Agriculture: The device is designed for sensing environmental data, detect and forecast potential insects' disaster using acoustic recognition. The project won the Second Position Award in the IEEE "Sensor and Measurement" Student Contest (IEEE IS&M-SC) for live demonstration session at IEEE International Instrumentation and Measurement Technology Conference (I2MTC).	
SKILLS	Programming: R, Python, Matlab, C, C#, SQL, Assembly. Machine Learning: Xgboost, Keras, Tensorflow, Scikit-learn, Tensor Toolbox. Electrical Engineering: Simulink, VHDL, Signal Processing, Raspberry Pi, Arduino. Visualization: ggplot, PowerBI, Bokeh, Leaflet, ShinyR.	
EXPERIENCE	Data Scientist (Contract) Mar. 2018 - Jul. 2018	Data Nerds Kelowna, BC
	I used tensor decomposition to manipulate the sparse spatial-temporal data, and forecast the average market values of properties for next year based on forecasting models such as Holt-Winter, ARIMA, AR, etc..	
	Research Assistant Sept. 2016 - Present	University of British Columbia Kelowna, BC
	I mainly conducted research on urban computing and machine learning supervised by Dr. Zheng Liu and Dr. Eric Li. And I also supervised colleagues' projects such as anomaly detection for wind turbine, ocean transportation analysis and non-destructive testing.	
	Data Scientist Internship (Mitacs) Sept. 2017 - Jan. 2018	Data Nerds Kelowna, BC
	The house price not only depends on quantitative attributes but also topography, the beauty of a house, demographic, safety, etc.. Using the neural network (multi-modal CNN) to fuse multi-source data for property assessment. <i>Application Ref. : IT10011.</i>	
	Teaching Assistant Sept. 2017 - Dec. 2017	University of British Columbia Kelowna, BC
	Course: APSC254 - Instrumentation and Data Analysis. I have hosted tutorial session to help students with their assignments, experiments and examination.	
	Data Scientist Internship (Mitacs) Dec. 2016 - Apr. 2017	Data Nerds Kelowna, BC
	Peer-dependence is an important criterion to estimate house prices. There is not any contemporary system to consider such impact in the field of real estate appraisal. I have developed a valuation system to convert the measurement of peer-dependence into sequential learning. Using long short-term memory (LSTM), the method outperforms than contemporary appraisal models. <i>Application Ref. : IT08399.</i>	
	Teaching Assistant Sept. 2015 - May 2016	Northern Arizona University Flagstaff, AZ, USA
	Courses: EE348 - Signal Processing and EE188 - Introduction to Electrical Engineering. I mainly helped professor grade assignment, lab reports, and exams. Moreover, made answers for each assignment and exams.	

PRESENTATION	The 45th Annual Meeting of the Statistical Society of Canada, Poster	Jun. 2017
	Child Protection Hackathon 2017 in Vancouver hosted by Two Hat Security	Jul. 2017
	IEEE International Conference on Computational Intelligence and Applications	Sept. 2017
AWARDS	IEEE IS&M-SC - Second Position	May 2018
	Student Travel Award from Statistical Society of Canada	Mar. 2017
PUBLICATION	H. Liu, Z. Liu, S. Liu, Y. Liu, J. Bin , F. Shi, H. Dong. "A Nonlinear Regression Application Via Machine Learning Techniques for Geomagnetic Data Reconstruction Processing". <i>IEEE Transactions on Geoscience and Remote Sensing (IF: 4.94)</i> . In Press .	
	C. Zhang, J. Bin and Z. Liu. "Wind Turbine Assessment through Inductive Transfer Learning". <i>IEEE 2018 International Instrumentation and Measurement Technology Conference (I2MTC)</i> . In Press .	
	Q. Jin, J. Bin , W. Ren and Z. Liu. "Structural Performance Analysis and Prediction for In-service Bridge with SHM Data Mining". <i>Canadian Society of Civil Engineering (CSCE) 2018 Annual Conference</i> . In Press .	
WORK-IN PROGRESS	J. Bin , B. Gardiner, E. Li and Z. Liu. "Peer-dependence Valuation Model for Real Estate Appraisal". <i>Neural Processing Letters (IF:1.62)</i> . Under Review .	
	J. Bin , B. Gardiner, Z. Liu and E. Li. "Simple Attention-based Multi-modal Fusion for Real Estate Appraisal". <i>Neural Computing & Applications (IF:2.50)</i> . Under Review .	
	J.X. Liew, J. Bin and Z. Liu. "Software as a Service: the Future of NDI Data Analysis in the Cloud". <i>Insight (IF:0.754)</i> . Under Review .	
	J. Bin , B. Gardiner, Z. Liu and E. Li. "Multi-source Data Fusion for Property Assessment". <i>Information Fusion (IF:5.66)</i> . Submitted .	
	Q. Jin, J. Bin , W. Ren, Z. Li, "In-service Structural Performance Analysis and Prediction with SHM and Data Mining: Two Case Studies in Bridge Engineering", Preparation .	
REFERENCES	Dr. Zheng Liu Senior Member of IEEE Associate Professor in School of Engineering University of British Columbia, Okanagan Campus EME 4205, 3333 University Way, Kelowna, BC V1V 1V7, Canada +1 (250)807-9970 · zheng.liu@ubc.ca	
	Dr. Eric Li Assistant Professor of Marketing Faculty of Management University of British Columbia, Okanagan Campus EME 4125, 3333 University Way, Kelowna, BC V1V 1V7, Canada +1 (250)807-8853 · eric.li@ubc.ca	
	Dr. Chen Feng Assistant Professor in School of Engineering University of British Columbia, Okanagan Campus EME 4285, 3333 University Way, Kelowna, BC V1V 1V7, Canada +1 (250)807-8286 · chen.feng@ubc.ca	