LEANNE J DONG

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EDUCATION

Doctor of Philosophy – PhD, Mathematics and Statistics 2016 - 2018
University of Sydney
Thesis topic: Stochastic Navier Stokes equations on 2D rotating sphere perturbed by stable Lévy noise.
Areas of focus:

- Travelling wave solutions for equations of Fisher KPP/Porous medium type
  University of New England 2015 – 2015
- Non-classical symmetry analysis of Bacterial Colony System
  University of South Australia 2014 – 2014
- Existence, Regularity and Ergodicity of stochastic Navier-Stokes equations perturbed by cylindrical Lévy noise
  University of South Australia 2013 – 2014
- The pricing, hedging and calibration of VWAP options
  The University of Technology Sydney 2012 – 2012

Bachelor of Mathematics Class I Honors (Best of Class 2011) 2008 – 2011
WAM: 88.4; Thesis: 91
The University of Technology Sydney
Thesis topic: The pricing of VWAP options under Lévy process framework

GraDip Commerce, Master of Finance 2005 – 2008
Distinction average
The University of New South Wales

Bachelor of Commerce 2003 – 2005
Major in Accounting with focus on Economics, Credit average
Macquarie University

OTHER CERTIFICATES

Chartered Financial Analyst (CFA) Level 1 (Completed at 1st, December 2007)
Full certificate of Object-Oriented C++ (Faculty of IT and Engineering, UTS, Oct, 2012)
Numerous programming certifications (See LinkedIn page)

EMPLOYMENT HISTORY

Affiliate Researcher, Jan-May 2019
Centre for translational Data science, The University of Sydney

My Intern research focuses on

- Statistical Machine Learning (Theoretical)
- Bayesian Neural Network with MCMC (Python)
- Parallel tempering Bayesian Neural Networks (in Python)
- Bayesian Neural Network for Finance, Climate Change

I code with Python, mostly from scratch, benchmark with Keras/Tensorflow/PyTorch.
Have also completed a course in Neural Network and various ML training, such as GNU HPC Computing.

Teaching Assistant, Feb, 2019- Current (Approx. 20hr per week)
Discipline of Business Analytics, The University of Sydney

- Tutoring and designing Machine Learning/Data Mining Laboratory material
- Codes conversion from R to Python
- Units of focus: Financial Times Series Analysis and Forecasting, Machine Learning and Data Mining, Quantitative Business Analysis

Software Use: Python, MatLab, EXCEL

Sessional Lecturer, June 2018-Current
Faculty of Education and Art, Australian Catholic University

- Lecturing, Coordinating and tutoring Statistics and Probability
- Responsible for administration, marking of assignments, quizzes and final exams
- Developed new teaching material using RSlidy/Rmarkdown and Excel
- Help students learn statistical programming language R in a simple way

Mathematics Tutor, March 2016-Present
School of Mathematics and Statistics, The University of Sydney

- Delivery of board style tutorials to first year students; Prepare and deliver lectures to 2^{nd}-3^{rd} year students;
- Marking quizzes, projects, assignments and Final exams (more than 3000 scripts)
- Provide feedback to unit coordinators
- Subjects focus: Foundation of Data Science (Advanced, 2019), Linear Mathematics and Vector Calculus (2016, 2017, 2018, 2019), Foundation of Data Science (2018), Stochastic Processes and Time Series (2018), Differential Calculus (2017), Integral Calculus (2017), Financial Mathematics (2016), Statistical Thinking with Data (2018), Calculus of One Variable (2018), Analysis (2018), Machine Learning and Data Mining (2018), Financial Time Series (2018)
- Receive positive feedbacks from Junior and Advanced students

Mathematics Tutor, March 2011-Present
School of Mathematics and Physical sciences, The University of Technology Sydney

- Delivery of demonstration style tutorials to students at all levels
- Marking quizzes, assignments and Final exams (more than 4000 scripts)
- Provide feedback to subject coordinators
- Subjects focus: Advanced Mathematics and Physics (2016, 2017, 2018, Sole Tutor), Quantum Physics (2018), Analysis and Multivariable Calculus (2016, 2018), Linear Algebra (2018), Linear Dynamical Systems (2017), Statistics and Mathematics for Sciences (2017), Calculus of One Variable (2018) , Mathematical Modelling for Sciences (2011, 2016, 2018, 2019), Mathematical Modelling 1 (2011, 2016), Mathematical Modelling 2 (2017), Mathematics Study Support Center (2011, 2012, 2016, 2017, 2018)
- Received positive feedback from senior Engineering students

Assistant to Vice President, Nov 2009 – Feb 2010
American International Assurance (AIA), Guang Zhou, China

- Perform macroeconomic analysis on Chinese life insurance industry via reports and presentations
- Perform insurance product analysis via reports and presentations
- Provide investment recommendation for life insurer via spreadsheet modelling and present to senior stakeholders
- Provide advice to insurance operations management

Trainee Tax Accountant, Mar – Dec 2005
ABL Accounting and Computing, Sydney, Australia

- Prepare tax returns

Equity Research Assistant, Dec 2005 – Feb 2006
SBI E2-Capital Asia – Equity Research (*Sell-Side*), Hong Kong, China

- Prepare and distribute financial reports in MS Excel
- Maintain financial models, track stocks, update valuation sheets and models
- Research on stock fundamentals using Bloomberg
- Use independent judgment in completing tasks, establishing priorities, and meeting deadlines

Technical Skills

C++/C (Basic), Python (scikit, pandas, numpy, scipy, matplotlib, seaborn, statsmodels), SQL (Intro), R (Dplyr,ggplot2), MatLab (Simulation, Time series, Scientific computing), Maple, Mathematica,VBA, LaTeX, Git, HPC, Linux/Unix, Basic Shell Scripting

Volunteering

Participants supervisor in the Simon Marais Mathematics Competition
School of Mathematics and Statistics, University of Sydney, Sep 2017

NATIONALITY

Australian citizen. Fluent in English, Cantonese, Mandarin.