ChenGuang Zhao

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SUMMARY OF QUALIFICATIONS

- Ph.D. candidate in Applied Math/Theoretical Physics (with training in numerical analysis, PDE, stochastic calculus) committed to career in quantitative finance.
- 6-year experience in mathematical modelling (Monte Carlo simulation, numerical/symbolic computation) and programming (C++, Matlab, Mathematica, etc.).
- Coding experience on statistical methods and machine learning (linear/logistic regression, neural networks, support vector machine, principle component analysis, K-means clustering).
- CFA level I and FRM level I candidate with knowledge of financial derivatives modelling and risk management.
- Proactive learner with strong communication and analytical skills developed from extensive teaching and research.
- Capability to solve problems independently or as part of a team to attain results within tight deadlines.

SKILLS, CERTIFICATES AND PUBLICATIONS

- **Computer:** C++, SQL, Excel, Matlab, Mathematica, Maple
- **Language:** English(fluent), Mandarin(native).
- **Certificates:** Machine Learning (Coursera), Leadership Education Program (Western University, tier 1 and tier 2).
- **Publications:** Canadian Journal of Physics (2016), Physics Review D (2017), Nuclear Physics B (2018).

EDUCATION

Western University, London, ON **May 2014 – Present**
Doctor of Philosophy: Applied Mathematics

- Recipient of Western Graduate Research Scholarship

Western University, London, ON **May 2012 – April 2014**
Master of Science: Applied Mathematics

- Recipient of Western Graduate Research Scholarship
- Relevant courses: Advanced Numerical Analysis, Partial Differential Equation.

Sun Yat-sen University, Guangzhou, Guangdong **September 2007 – August 2011**
Bachelor of Science: Physics

- Recipient of Third Prize Scholarship for Outstanding Students.
- Relevant courses: Advanced Mathematics, Probability and Mathematical Statistics, Advanced Algorithmic Language and Programming(C++), Enterprise Competitive Intelligence Study, Capital Operation.

PROFESSIONAL EXPERIENCE

Western University, London, ON
Graduate Research Assistant **May 2012 – Present**

- Carried out implementation of a class of special functions in Matlab applying various methods on different regions. Introduced scaled functions with dominant exponential behavior factored out to avoid numerical overflow/underflow.
- Performed numerical simulation to a differential equation graphene model and provided predictions based on numerical analysis.
- Developed, validated and improved a gravity model after performing large scale numerical tensor computation.
- Articulated a redundancy problem in quantum physics and introduced a new characterization method to eliminate redundancy. Exercised new method and identified meaningful coefficient relations via programming, leading to significant simplification of existing theory.
- Established and maintained international collaboration with researcher in Brazil, resulting in academic publications.
- Annually presented different research topics to academics, students and faculties to share and inform breakthroughs.

Graduate Teaching Assistant **May 2012 – Present**

- Organized and taught weekly tutorial sections and held office hours to 60 undergraduate and graduate students, offering support for various applied math courses, which led to improved grades.
- Developed interactive course material to mentor students on developing learning skills.
- Created exams and quizzes, graded written assignments, midterms, finals, and quizzes within required deadlines

EXTRACURRICULAR ACTIVITIES

Division of Survey and Research, Student Union, SYSU, Guangzhou, China
Director **September 2008 – August 2009**

- Led a group of 10 individuals conducting survey and analyzing survey data to support decision-making of Student Union through effective delegation and supervision, and produced detail-oriented report.
- Organized various workshops and informative lectures through making connections with high level professionals.
- Self-taught SPSS before teaching seminars to groups of 30 undergraduate students, resulting in cross-departmental success.