



Taylee Staffing Inc.
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Candidate: 0413PO
Seeking Job Within Financial Industry

Qualifications Profile

- PhD with over 10 years training in mathematical theory and application.
- Expertise in PDEs and Numerical Analysis including finite element theory and scientific computing.
- Proficient in mathematical software packages: Python, C++, FEniCS, SAS, Matlab, Mathematica, Latex.
- Experience using programming and analytical skills in industry settings.
- Teaching and evaluation skills gained as a Teaching Assistant (TA) and the ability to explain technical information clearly to multiple audiences.

Education

University of Minnesota, Minneapolis, MN
Ph.D. In Mathematics GPA 3.9/4.0 Expected May 2016
M.S. In Mathematics GPA 3.9/4.0 January 2012

University of Science and Technology of China, Hefei, China
B.S. In Mathematics GPA 3.7/4.0 July 2004

Advanced Coursework

Numerical analysis and scientific computing, Numerical analysis on Partial Differential Equations(PDE), Finite element exterior calculus, Mathematical modeling, Theory of PDE, Theory of Probability, Stochastic Processes.

Skills

- Programming: Python, C++, FEniCS, SAS, Matlab, Mathematica, Latex.
- Quantitative: numerical solution of partial differential equations, finite element method, finite difference method, Monte Carlo method, stochastic calculus, linear algebra.

Research Thesis

Error Estimators for Numerical Simulation

Used PDEs & finite element theory to improve error factor in simulation models

- Generalized the current error estimators for an existing numerical simulation.
- Developed a theory that increases the accuracy of an error estimator in a numerical simulation.
- Demonstrated the possible application of the error estimators.
- Stress tested the theory using Python and FEniCS.
- Through graphs and numerical data presented increased precision and speed of new theory.

Professional Experience

A Minnesota Without Poverty (AMWP) - Internship Spring 2014 (3 months)

Measured effectiveness of AMWP strategies related to Minnesota Legislative Commission to End Poverty by 2020

- Identified challenges that need to be overcome to help achieve the goal of reducing poverty.
- Recognized strategies pursued by AMWP to overcome the challenges.
- Generated measurable parameters to monitor the progress of those strategies.
- Identified existing resources and contacted scholars for advice.
- Gathered and analyzed data on people in the current population survey using SAS.
- Researched and recommended cost-effective strategies to achieve the goal of reducing poverty including:
 - o Expanding the child care assistance program,
 - o Extending the federal earned income tax credit,
 - o Increasing the minimum wage.
 - Presented final report with graphs and numerical data to less technical audience.

Shurail HAVC, Bloomington, MN- Internship Fall 2013 (3 months)

Worked in a corporate setting and met goals within a tight deadline

- Designed and constructed the website of the company.
- Set up the online purchase system via amazon and company website.

University of Minnesota, Department of Mathematics, Teaching Assistant 2012-2015

Developed coaching, leadership & evaluation skills and ability to explain technical information in a clear way

- Teaching assistant: “Mathematical Theory Applied to Finance” sequence for UMN's Master of Financial
- Mathematics program.
- Demonstrated Matlab and Mathematica in lab sections.
- Designed lectures and quizzes for undergraduate courses.
- Evaluated various coursework including Multivariable Calculus, Math Modeling, Linear Algebra and Differentiable Equations.

Professional Affiliations

- Member of Society for Industrial and Applied Mathematics (SIAM)
- Advanced Professional Degree Consulting Club / University of Minnesota (APDCC)