

# SZU-YU PAI

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## WORK EXPERIENCE

- Founder, Website, QuantCalc Financial Math Calculator, Tallahassee, FL** Sep 2012 - Present
- Designed and developed the website, QuantCalc Financial Math Calculator (www.quantcalc.net).
- Instructor and Teacher Assistant, Florida State University, Tallahassee, FL** Aug 2009 - Present
- Developed and implemented effective lessons in pre-calculus for undergraduate students.
- Intern, Foreign Exchange Department, Chinatrust Commercial Bank, Taipei, Taiwan** May - Jul 2012
- Priced exotic foreign exchange (FX) derivatives such as barrier options and window barrier options and calculated Greeks of the derivatives.
  - Using Excel and SQL, established a data collection program to report prices of derivatives and to assist FX traders.
  - In order to obtain accurate parameters of models faster, found a good start point for calibration of models such as the Heston model.
- Second Lieutenant, Taiwan Coast Guard Administration (CGA), Taipei, Taiwan** Aug 2008 - Aug 2009
- Maintained computer equipment and kept information of CGA secure by monitor web traffic data.
- Intern, Derivatives Department, Polaris Securities Co., Ltd., Taipei, Taiwan** Jul - Aug 2006
- Used Excel VBA and Matlab to design medium frequency systematic trading strategies based on put-call ratio.
  - Back tested the statistical arbitrage trading strategies by using Matlab.

## PUBLICATIONS

- Pai, S. Y., & Kopriva, D. A., 2012. *Modeling credit risk by numerical PDE methods*. Pacific Basin Finance Economics Accounting and Management conference.
- Fuh, C. D., & Pai, S. Y., 2010. *Arbitrage Detection from Stock Data: An Empirical Study*. Handbook of Quantitative Finance and Risk Management. Springer-Verlag, 1577-1591.

## PROJECTS

- Project, "Markov chain Quasi-Monte Carlo for stochastic volatility models" May 2010
- Calibrated stochastic volatility models and used new Quasi-Monte Carlo to improve rate of convergence.

## PROFESSIONAL EXAM

- Passed Society of Actuaries Exam P (Probability) and Exam FM (Financial Mathematics)
- C/C++ Programming I Certificate, National Taiwan University

## TECHNICAL SKILLS

Computer languages: MATLAB, C/C++, Excel VBA, JAVA, HTML, JavaScript, PHP, MYSQL, Linux

## EDUCATION

- Ph.D. in Financial Mathematics, Florida State University, Tallahassee, FL May 2014
- M.S. in Financial Mathematics, Florida State University, Tallahassee, FL May 2011
- M.B.A. in Finance, National Taiwan University, Taipei, Taiwan May 2008
- B.S. in Mathematics, National Taiwan University, Taipei, Taiwan May 2006

## HONORS RECEIVED

- Stipend and Tuition waiver, Florida State University Aug 2009 - Present
- Scholarship, Taoist Tai Chi Society of the USA Jan 2011
- Scholarship, Cathay Financial Group, Taiwan Aug 2008