# SZU-YU PAI

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208 Love Building, 1017 Academic Way, Tallahassee, FL 32306

## WORK EXPERIENCE

**Founder, Website, QuantCalc Financial Math Calculator, Tallahassee, FL**                     Sep 2011 - 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 - Aug 2012

- Priced exotic foreign exchange (FX) derivatives such as barrier options and window barrier options and calculated Greeks of the derivatives.
- By using Excel and SQL, established a data collection program to report derivative prices 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/C++, Excel VBA, JAVA, HTML, JavaScript, PHP, MYSQL, Linux/Unix

## EDUCATION

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

Scholarship, Taoist Tai Chi Society of the USA

Scholarship, Cathay Financial Group, Taiwan