WARAPORN (WARA) TONGPRASIT

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EDUCATION

09/06-04/13 **Stanford University**, Stanford, CA.
Ph.D. in Operations Research, Dept. of Management Science and Engineering
Dissertation: "Empirical Analysis of the Impact of Tick Sizes On Exchange Efficiency"

09/00-06/02 **Stanford University**, Stanford, CA.
M.S., Computer Science, with a specialization in database systems.

05/95-03/99 **Chulalongkorn University**, Bangkok, Thailand.
B.Eng, Computer Engineering.

PROFESSIONAL EXPERIENCE

06/19-present **Vice President,** Central Risk Book, Morgan Stanley, New York, NY
- Analyze order flows from different sources that the desk facilitates and use the insights to improve the inventory risk management and to improve the PnL from the facilitation.
- Develop alpha research platform and help onboard new joiners and colleagues to the platform.
- Develop alpha signals and overlay the signals to improve the flow facilitation and inventory risk management.

11/16-03/19 **Senior Quantitative Researcher,** Equities Statarb Team, Clinton Group Inc., New York, NY
- Researched and developed new alpha models using traditional and Machine Learning approaches for equities strategies over different time horizons.
- Designed and implemented an automated alphas discovery system.
- Analyzed Clinton Group's proprietary data to evaluate and improve the performance and risk management of the existing strategies.
- Researched and assessed new investment strategies for the fund

03/13-10/16 **Quantitative Analyst,** Options Market Making Team, Wolverine Trading, LLC, Chicago, IL
- Analyzed market data of stocks, options, and futures including quotes, trades, and news, and developed short-to-medium-term alpha signals, factor models, and trading strategies, both defensive and offensive.
- Analyzed Wolverine Trading's proprietary data to evaluate and improve the current trading strategies and to backtest new strategies.
- Worked with developers and engineers to design and implement ultra-low latency trading system.
- Designed an experiment framework and developed a metric used for comparing performance of trading strategies under different market conditions.

07/02-08/06 **Research Scientist,** Eloret Corporation at NASA Ames Research Center, Moffett Field, Mountain View, CA
- Developed computational methods for analyzing high volume data from microarrays and for selecting DNA probes from genome sequences for gene expression and transcription studies.
- Designed and implemented high throughput database systems and user interfaces for microarray data and DNA sequencing.
- Created web based software for DNA-assembly oligonucleotide design.

- Designed and developed automated data acquisition system, software library, and software interface for solid-state nanopore.

06/01-06/02 **Research Assistant,** Stanford Genome Technology Center, Palo Alto, CA
- Designed and implemented software modules for data acquisition and event detection and database systems for data from experiments.

PROGRAMMING SKILLS

Python, KDB Q, MatLab, C, C++, C#, OneTick, SQL, Perl, Visual Basic

HONORS AND AWARDS

11/10 **Honorable Mention Award,** the Best Student Paper Award competition, Financial Services Section, INFORMS 2010 Annual Meeting

09/08-06/11 **FSI Starr Fellowships**, Freeman Spogli Institute, Stanford University, awarded 3 consecutive years

09/06 **Graduate Fellowship for Women in Engineering**, Stanford University

09/04 **Spotlight Award** for outstanding research, Eloret Corporation at NASA Ames Research Center

03/99 **First Class Honors**, Chulalongkorn University (awarded to the top 5% among 700 engineering students)

WORKING PAPERS

- "**Empirical Analysis of Tick Sizes and Exchange Efficiency.**"
Developed a method for assessing and comparing stock exchange efficiency under different tick sizes.

- "**Predicting the Impact of Regulatory and Design Decisions on Exchange Efficiency.**"
Developed a method that uses historical data and simulations to predict stock exchange efficiency under new securities exchange regulations and market designs where data from the exchange is not yet available.

- "**Order Book Shape and Stock Price Movements.**"
Formulated a mathematical model for predicting short-term stock price movements from the shape of order book.

PUBLICATIONS

Coauthored 16 papers published in prestigious journals, including 5 in *Science*. Below are selected publications. Complete list can be found at http://cs.stanford.edu/~waraporn/.

- "**The Transcriptome of the Sea Urchin Embryo.**", Manoj P. Samanta, Waraporn Tongprasit, Sorin Istrail, R. Andrew Cameron, Qiang Tu, Eric H. Davidson, Viktor Stolc, *Science*, 2006 Nov 10;314(5801):960-962 17095694 (http://www.sciencemag.org/cgi/content/abstract/314/5801/960)

- "**Global Identification of Human Transcribed Sequences with Genome Tiling Arrays.**", Paul Bertone, Viktor Stolc, Thomas E. Royce, Joel S. Rozowsky, Alexander E. Urban, Xiaowei Zhu, John L. Rinn, Waraporn Tongprasit, Manoj Samanta, Sherman Weissman, Mark Gerstein, Michael Snyder, *Science*, 24 December 2004, 306:5705:2242-2246 (http://www.sciencemag.org/cgi/content/abstract/306/5705/2242)

- "**Characterization of synthetic DNA barcodes in *Saccharomyces cerevisiae* gene-deletion strains.**", Robert G. Eason, Nader Pourmand, Waraporn Tongprasit, Zelek S. Herman, Kevin Anthony, Olufisayo Jejelowo, Ronald W. Davis, Viktor Stolc, *Proc. Natl. Acad. Sci. U.S.A.*, 2004 Jul 16, 101:30:11046-11051 (http://www.pnas.org/cgi/content/full/101/30/11046)