# Wang Chun Wei, PhD, CFA

### **Contact Information:**

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### Personal Information:

Australian citizen; male

### **Current Positions:**

The University of Queensland, Australia Lecturer in Finance (continuing)

Jan. 2018 - present

### **Education:**

University of Illinois at Urbana-Champaign, Department of Computer Science Master in Computer Science

May. 2018 - present

University of Sydney, Business School

Ph.D. in Finance

Aug. 2010 - Dec. 2013

"Essays on Information Asymmetry and Price Impact in Market Microstructure"

UNSW, School of Computer Science and Engineering

Grad.Cert. in Information Technology

Aug. 2011 - Jul. 2013

WAM: 89 / High Distinction

University of Melbourne, Department of Economics

B.Comm. (Honours) in Actuarial Studies, First Class

Jan. 2005 - Dec. 2008

"Modelling Hedge Fund Returns: Performance, Risk Characteristics and Cloning Techniques"

CFA Charterholder Dec. 2015 - Jul. 2017

### **Publications:**

- "Liquidity and market efficiency in cyrptocurrencies", Economics Letters, 168, 21-24, 2018
- "Does the probability of informed trading model fit empirical data?" with Quan Gan and David Johnstone, Financial Review, 52(1), 5 35, 2017 (lead article)
- "A faster estimation method for the probability of informed trading using hierarchical agglomerative clustering" with Quan Gan and David Johnstone, *Quantitative Finance*, 15(11), 1805 1821, 2015
- "Cloning hedge funds: a factor-based approach", JASSA The Finsia Journal of Applied Finance, Issue 1, 2010

### Awards and Honors:

- 2010 2013: Capital Markets CRC PhD Research scholarship (\$50k pa for 3 yrs)
- 2010 2013: Australian Postgraduate Awards scholarship (\$25k pa for 3 yrs)
- 2012: Best Paper Award, Accounting and Finance Association of Australia and New Zealand
- 2009: Kinsman Studentship Prize, The University of Melbourne
- 2005: Institute of Chartered Accountants Achiever Awards

- 2004: Bronze, Australian Mathematical Olympiad
- 2003: Bronze, Australian Mathematical Olympiad
- 2003: Diploma winner, International Mathematics Tournament of Towns, Russian Academy of Sciences

## Media Appearances:

- "Cluster analysis gives academic inside look at trading", *The Australian Financial Review*, 5-Feb-2014 (newspaper interview)
- "Chasing 'informed trades' can be a formula for success", *The Australian, Business section*, 3-Feb-2014 (newspaper interview)

### **Conferences Presentations:**

- Quantitative Methods in Finance Conference, Sydney, Australia, 16th December 2016
- Asian Finance Association Annual Conference, Hunan University, Changsha, China, 2nd July 2015
- 8th Nordic Econometric Meeting NEM 2015, University of Helsinki, Finland, 30th May 2015
- 8th International Conference on Computational and Financial Econometrics CFE 2014, Pisa, Italy, 8th December 2014
- World Finance Conference, Venice, Italy, 4th July 2014
- Louis Bachelier Risk Conference, Paris, France, 26th March 2013
- 25th Australasian Banking and Finance Conference, Sydney, Australia, 18th December 2012
- 27th International Conference of the American Committee for Asian Economic Studies, Melbourne, Australia, 27th October 2012
- Accounting & Finance Association of Australia and New Zealand Conference, (won the best finance paper award), Melbourne, Australia, 3rd July 2012

### **Professional Experience:**

## Lecturer in Finance

Jan. 2018 - current

The University of Queensland, Brisbane

Academic researcher in empirical asset pricing, quantitative finance and market microstructure. Currently course co-ordinating and lecturing in:

- FINM 2412 Financial Management for Business (2nd year undergraduate)
- FINM7405 Financial Risk Management (graduate)

## Manager, Quantitative Analyst / Assistant Portfolio Manager Executive, Quantitative Analyst

Jul. 2016 - Jan. 2018

Apr. 2015 - Jun. 2016

Macquarie Group, Macquarie Investment Management, Listed Equities, Sydney

Development of quant factors and models for global and domestic equity products. The quant team runs approx. A\$3bn enhanced index and active quant products for institutional clients.

#### Key achievements:

- Assistant Portfolio Manager for enhanced index products (FTSE Developed Infrastructure, EPRA NAREIT, MSCI DM/EM, Value and Quality Tilt indices); responsible for FX hedging, index rebalancing, corporate actions, database maintenance and monthly market commentary
- Development of quant factors backtested across a global universe, largely sector and country neutral with low tracking error
- Portfolio construction methods: combining quant factors (or Smart Beta products) in meeting risk and return objectives (especially with ESG or client specific constraints)

- Portfolio analysis, risk and performance attribution using Axioma and R
- Building backtesting framework and statistical tools in R, Python, Matlab ad SQL

## Senior Analyst, Quantitative Research

Oct. 2013 - Apr. 2015

AustralianSuper, Macro-strategy and Portfolio Construction, Melbourne

The Macro-strategy and Portfolio Construction team reports directly to the CIO. Providing quantitative solutions, developing asset allocation strategies and building risk budgeting tools for AustralianSuper to meet its investment targets.

### Key achievements:

- Multi-asset portfolio construction using risk budgeting
- Asset allocation strategies using factor modelling, regression trees and hierarchical agglomerative clustering (e.g., error-correction FX model, macroeconomic decision trees for TAA, factor modelling for DM/EM and Small/Large tilt strategies)
- Built in-house analytical risk model in R with GUI, which calculates marginal contribution to total risk and tracking error in terms of asset class and sector level tilts. This model is currently used on a weekly basis by the whole Investments team
- Development of a risk factor model that focuses on macroeconomic variables
- Worked with EY actuarial in building optimal dynamic glidepath strategies for pension products dependent on member's wealth and investment horizon
- Ad hoc research on demand for the CIO directly with quick turnaround
- Built performance model in R with GUI which analyses the efficacy of individual bets

## Quantitative Analyst

Aug. 2010 - Oct. 2013

Regal Funds Management, Quantitative Strategies, Sydney

Building algorithmic trading strategies for the Regal Asian Quant Fund with a team of three quants and developers. My Ph.D. and Grad.Cert. in IT were sponsored by Regal Funds Management.

### Key achievements:

- Development and backtesting of trading strategies on Matlab, R and CapitalIQ ClariFI of varying time-frequencies (from weekly to 15-minute intervals) across a Pan-Asian universe of stocks
- Strategies examined included: Bucket co-integration methods, short interest, index inclusion and exclusion, momentum, technicals and estimating the probability of informed trading on small caps
- Data management and analysis of Thomson Reuters Tick History for trading strategies
- Created fund performance and attribution reports using Excel VBA

### Research Assistant and Teaching

ad hoc. 2013 - 2015

The University of Sydney, Business School - Discipline of Finance, Sydney

Research Interests and teaching:

- Market microstructure, financial econometrics, statistical regularization
- Tutored Fixed Income Securities for Semester 1, 2013
- Guest lecturer for Investments at the University of Wollongong

## Additional Information:

- Languages: R, Python, SQL, JavaScript, Matlab, VBA Excel, LATEX, English, Mandarin, Shanghainese
- Financial Applications: Axioma Portfolio, Factset, Bloomberg, CapitalIQ ClariFI, MS Office, Thomson Reuters Tick History
- Interests: Travelling, watching documentaries, art-house films and reading novels

# References:

References (industry and academia) provided upon request.