Nico Katzke | Curriculum Vitae

Stellenbosch – South Africa

(074) 104 2365 • nfkatzke@gmail.com

Overview

- I am a trained quantitative analyst, with a Master's degree in Economics (Cum Laude) and Honours in Economics and Mathematical Statistics. I am also a published researcher.
- I have a keen interest in financial modeling and building quantitative investment strategies. I am currently employed as a senior quantitative analyst at Prescient Securities. Previous positions include being a financial econometrician at the Buro for Economic Research, and a quant at Fairtree Capital in Cape Town developing factor based investment solutions in **R**. I also teach post-graduate courses in time-series statistics and financial econometrics part-time at the Economics Department of Stellenbosch University.
- I am a skilled and disciplined programmer using the language **R**, with which I am proficient at doing:
  - Financial modeling and statistical analyses on big data;
  - Downloading and efficiently managing large datasets from Bloomberg through R;
  - Writing dynamic reports using Rmarkdown and developing personalized LaTeX scripts as templates;
  - Building dynamic user interfaces using Shiny, as well as designing websites maintained from **R**;
  - Building detailed portfolio attribution reports.
- I am a highly organized coder, with experience working in teams on version controlled code using Gitub.
- I also have experience doing formal research and presenting such work to clients. I also have experience providing ad hoc statistical and econometric consulting to both private and public institutions.

Formal Education

University of Stellenbosch & Tuebingen University, Germany

MComm(Economics), Cum Laude (80%) *2009–2011*

Focus Areas: Time-Series Econometrics, Financial Econometrics, Macroeconomics and Finance.

University of Stellenbosch

BComm Honours (Economics & Mathematical Statistics), *2008*

University of Stellenbosch

BComm (Mathematical Sciences), *2005 – 2007*

Paul Roos Gymnasium

Matriculated with a 96% Average (all subjects A aggregate), *2004*

Biographic Summary

- Independent ; Analytical mind ; Problem Solving ; Enjoy a challenge ; Quick learner ; Diligent worker
- Experience in: Programming; Presenting ; Research ; Compiling dynamic reports ; Consulting ; Statistical and Econometric Analysis
- Interests: Quantitative Analytics ; Statistical Analysis ; Financial Modeling ; Formal Research
- Preferred Languages: **R** combined with **LaTeX**. I use version control in **Github** to back up code; Flexible in improving my use of other programming languages (e.g. Python, Matlab).

Core Competencies

- **Coding Ability**: Proficient at using statistical package **R** to do data analysis, statistical modelling and write-ups and presentations of work effortlessly. My go-to packages and platforms in R are: **Rmarkdown** for writing (after building personalized templates in LaTeX); **Shiny** for development of interactive User Interfaces; **Dplyr** for data wrangling; **purrr** for data loading; **xts** for time-series analysis, coupled with **PerformanceAnalytics** for financial analysis.
- Sound understanding of statistics and in particular applications related to Finance, Econometrics, Time-Series Statistics and Financial Econometrics.
- **Reports**: Efficient at writing and designing report frameworks using LaTeX as back-end to R analyses. This enables me to design and maintain dynamic templates that output dynamic (HTML, Shiny) or static (PDF) reports effortlessly.
- **Academic Writing**: I have publications accepted in two top rated peer reviewed US journals and a domestic journal, as well as several other pending publications and working papers locally.
- **Presenting**: Experienced at presenting to clients as well as teaching at post-graduate level. I have presented at conferences and seminars both locally and internationally and designed and taught post-graduate courses at several academic institutions.
- **Independent Researcher**: Able to do independent research and adapt outside of strength areas. Enjoy a challenge and learning new techniques within or outside of my field of research.
- **Consulting**: As a trained macroeconomist and econometrician, I have experience consulting to private and public institutions (Reserve Banks and other). Experience also includes statistical consulting as well as writing formal reports to clients.

Work Experience

Prescient Securities **Westlake**

Senior Quantitative Analyst *2017 - Present*

At Prescient, my work includes providing bespoke quantitative consulting and assistance to the asset management fraternity, as well as doing formal research and developing factor based investment systems. My role includes facing and interacting with clients, as well as managing and developing research projects.

Bureau for Economic Research **Stellenbosch**

Financial Economist *2016 - 2017*

At the BER my current role entails doing quantitative research, building research systems and platforms, and doing ad hoc projects in the field of macroeconomics and finance.

Fairtree Capital **Cape Town**

Equity Quantitative Analyst *2015 - 2016*

At Fairtree I was employed as an equity quantitative analyst, working closely with our quantitative investment fund manager. I developed systems that study data in excess of 2 billion points for companies across 24 different countries dating back to 2002. During this process I sharpened my abilities to manage large datasets, work with Bloomberg, do statistical analyses on financial data, meet and present with clients as well as building and maintaining robust coding systems in R (version controlled in Github). I was instrumental in designing the software, providing fund management and design inputs, as well as presenting our fund strategies to prospective clients.

Private Consulting

South African Reserve Bank **Pretoria**

Statistical Consulting *2017 - 2018*

Provided consulting to teams at the SARB relating to building coding infrastructure in R, building automated reporting systems as well as doing time-series statistics.

Alexander Brookes & Associates **London**

Statistical Consulting *2014 - 2015*

Provided statistical consultation to the Nigerian Central Bank in Abuja, Nigeria in 2014 and in 2015. This was mainly training and consulting in the space of designing macroeconomic forecasting models.

Econex **Stellenbosch**

Economic and Econometric Consulting *2011–2013*

Compiled several reports for Econex on behalf of private clients, with work including a report to the United Nations Industrial Development Organization (UNIDO) and a report to the SARB on behalf of foreign exchange client.

ASISA **Cape Town**

Statistical Consulting *2010*

Assisted with a report to the FSB by doing statistical analysis on the trends in domestic investment fund allocations.

Academic

Stellenbosch University **South Africa**

Lecturer *2011–Present*

After graduating with my Master's degree, I developed and presented several post-graduate Finance and Econometrics courses for the Economics Department at Stellenbosch, as well as for the University of Stellenbosch Business School in Bellville. I also served as a referee to several economics and finance journals. To see a collection of academic outputs and on-going research projects, refer to research section. I remain passionate about lecturing and like to stay abreast of developments in academia. I still teach two Master's courses part-time at Stellenbosch University.

Master's Level Courses Lectured:

- Financial Econometrics (Stellenbosch University)
- Advanced Time-Series Econometrics (Stellenbosch University)
- Financial Regulation (Stellenbosch University Business School)
- Public Sector Finance (Stellenbosch University Business School)

Honours Level Courses Lectured:

- Financial Economics (Stellenbosch University)

Research

- Katzke, N.F., Gupta, R. & Caspi, I. (2014). Date Stamping Historical Oil Price Bubbles for the period 1876 – 2014. (**Accepted in Energy Economics Journal**). (http://dx.doi.org/10.1016/j.eneco.2015.03.029)
- Balcilar, M. Katzke, N.F. & Gupta, R. (2015). Do Precious Metal Prices Help in Forecasting South African Inflation? Working Papers 03/2015, Stellenbosch University, Department of Economics (**Accepted in North-American Journal of Economics and Finance. (http://www.sciencedirect.com/science/article/pii/S1062940817300414)**.
- Katzke, N.F., Garbers, C. (2015). Do Long Memory and Asymmetries Matter When Assessing Downside Return Risk? (Accepted in **Investment Analyst Journal:** http://www.tandfonline.com/doi/full/10.1080/10293523.2015.1126916)
- Du Plessis, S.A., Katzke, N.F., Gilbert, E. & Hart, C. (2015). Mark-ups and competition: a comparison of the profitability of listed South African industrial companies. Working Papers 02/2015, Stellenbosch University, Department of Economics. (Submitted to **Economics of Transition** http://www.ekon.sun.ac.za/wpapers/2015/wp022015/wp-02-2015.pdf

- Balcilar, M. Katzke, N.F. & Gupta, R. (2015). Date Stamping US House Price Bubbles. (Accepted: **Economics e-Journal:**http://repec.economics.emu.edu.tr/RePEc/emu/wpaper/15-03.pdf).
- Katzke, N.F., Odendaal, N.J. (2015). Time Varying Beta Estimations: does it matter? (Forthcoming)
- Katzke, N.F., Polakow, D.A. (2017). Carry and Consequence. (Forthcoming).
- Katzke, N.F.(2013). South African Sector Return Correlations: using DCC and ADCC Multivariate GARCH techniques to uncover the underlying dynamics. (http://ideas.repec.org/p/sza/wpaper/wpapers193.html)

Academic Presentations

- The Annual Global Finance Conference. (Venice, Italy (2014))
- ERSA Time-Series Conference, Stellenbosch.
- Economics Department Seminar Series, University of Pretoria.
- Statistics Seminar Series, Stellenbosch.
- ESSA Economics Conference, Cape Town.
- SAFA conference, Cape Town.
- Dependence Modelling Conference, Salzburg, Austria (Sept 2016).
- World Finance Conference, Mauritius (July 2018).

Referee Duties

- Investment Analyst Journal
- Energy Economics
- ERSA Journal
- SA Journal of Accounting Research
- AfJARE
- ESSA Journal
- The Journal of Economic and Financial Sciences

Supervision Duties

Master's Thesis Supervision

- Hendrikz, M. (2013).
- Cata, O. (2013).
- Delport, N. (2013).
- Odendaal, N.J. (2014).
- van Huyssteen, R. (2014).
- Jeeva, A. (2016).
- Bothma, C. (2017, current)
- von Tiddens, C. (2017, current)

Honours Thesis Supervision

- Hendrickz, M. (2012)
- Du Plessis, W. (2012).
- van Niekerk, A. (2012).
- Olds, N. (2014).
- Prinsloo, U. (2014).

Computer skills

Statistical Packages: R, Eviews; some experience using Matlab, Python.

Preferred Writing Package: Rmarkdown combined with personlized LATEXtemplates.

Designing UI: Keen interest and ability to develop effective dynamic User Interfaces using Shiny.

Fully Competent using: Excel, Word, Powerpoint, Beamer

Communication Skills

Extensive experience teaching post-graduate courses, presenting on both academic and private sector platforms, and conversing with ease to individual clients. At Fairtree, I gained great experience presenting on various platforms to various clients. I am also experienced in explaining challenging and abstract concepts and can learn and explain new concepts in a short space of time. Teaching at post-graduate level has shaped my ability to convey information to others in a clear and concise manner.

Languages

English: Fluent

Afrikaans: Fluent

German: Comfortable conversing, uncomfortable writing.

Interests

- Sports:

  Rugby: Paul Roos 1st XV (2004)

  Wilgenhof 1st XV (2005 - 2009)

  Squash, Tennis (enjoy all ball sports).
- Advanced Scuba Diver (2013)
- Wrote, directed and played in varoius plays throughout my studies
- Bass singer: Die Kraaie (serenade group) (2005 - 2009)
- Chess and other stimulating boardgames
- Playing social poker
- Outdoors: Camping, Hiking, Mountain Biking
- Enjoy spending dead hours (in traffic, doing dishes) listening to stimulating podcasts.

Testimonials

Available upon request.