

# ABHISHEK DAS

## DATA SCIENTIST

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### HELLO, I'M AN...

academically trained researcher with Data Science, Machine Learning and Deep Learning skills. I'm passionate about using these tools to solve interesting problems.

My background helps me understand the business case behind a question. I can collect, organize and analyze relevant datasets and I know which methods are most appropriate to turn your data into insights. My greatest strength is engaging with and clearly communicating complex results to stakeholders at all levels.

I'm looking for a result driven team working on challenging problems trying to help other people and/or organizations.

### DATA SCIENCE STACK

- Python + Django
- R + Shiny
- Matlab, SAS, C++, Tableau
- SQL, NoSQL, Redshift
- AWS, HDFS and Spark
- APIs and Webscraping
- Network Analysis
- Recommendation Engines
- Supervised and Unsupervised ML
- Natural Language Processing
- Deep Learning
- Reinforcement Learning
- Statistical & Time Series Analysis
- Visualization and Presentation
- Google Analytics and SEO

### MY PORTFOLIO

#### GitHub

factorwonk.github.io

#### Website

www.factorwonk.com

### EDUCATION

#### PhD Finance

*Thesis: Essays on Hedge Fund Strategies*

#### Bachelor of Economics (Honors) Class I

*Econometrics and Finance*

The University of Sydney, Australia

### EXPERIENCE

Aug 2017 - Present

#### Mercurien

Consulting Data Scientist (GA Capstone Project)  
Developed a classification model to identify drivers more likely to have accidents

Jul 2016 - Jul 2017

#### Challenger Limited

Quantitative Analyst  
Created reporting and attribution systems for quantitative equity portfolios based on supervised learning models

May 2015 - Jul 2016

#### Dimensional Fund Advisors

Associate Portfolio Manager  
Managed multi-billion dollar quantitative equity portfolios based on systematic, evidence based financial research

Nov 2010 - May 2015

#### S&P Global Market Intelligence

Quantitative Specialist  
Financial time series modeler and researcher creating solutions for quantitative equity clients

Jan 2009 - Nov 2010

#### The University of Sydney

Associate Lecturer  
Course co-ordinator and academic researcher

Would you like to know more?



### CERTIFICATIONS

Data Science Immersive Graduate  
General Assembly DSi:3

Data Science with Python Track  
Data Camp

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## WORK EXPERIENCE IN DETAIL

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Aug 2017 - Present

### **Mercurien**

#### **Consulting Data Scientist (GA Capstone Project)**

Responsibilities:

- ETL Fleetrisk driver cognition, telematics and accident claims data to PostgreSQL database.
- Data Science lead for establishing the link between driver cognition and safety
- Prepared weekly analysis reports for Mercurien CEO and COO

Achievements:

- Created a classification model to identify drivers more likely to have accidents.
- Used K Nearest Neighbors, Decision Trees and Neural Networks trained on driver cognition, empathy, personality types and driver behavior
- Realized savings of \$55 per driver hired

Jul 2016 - Jul 2017

### **Challenger Ltd**

Quantitative Analyst

Responsibilities:

- Co-author for monthly client reports on portfolio performance and trading ideas
- Trade execution and booking of total return swaps to provide global equity exposure for superannuation clients

Achievements:

- Created options back-testing tool used to produce monthly client facing reports.
- Created Excel based portfolio attribution system for long-short EMN fund from TR Swaps database providing daily market level performance
- Created factor attribution system for systematic long-short EMN fund using data sourced from Bloomberg's Python API

May 2015 - Jul 2016

### **Dimensional Fund Advisors**

Associate Portfolio Manager

Responsibilities:

- Managed US\$ 3 Billion in Australian and Global equity market portfolios run using supervised machine learning models
- Generated FX orders to manage currency spending, overdrafts and negative interest currencies
- Undertook qualitative security reviews for universe eligibility and global corporate actions
- Portfolio analysis, attribution and performance write-ups for clients

Achievements:

- Improved operational efficiency creating a Futures Exposure Tool, and undertaking ADR and Country eligibility reviews
- RG146 Professional Accreditation (Generic Knowledge & Managed Investments)

Nov 2010 - May 2015

### **S&P Global Market Intelligence**

Quantitative Specialist

Responsibilities:

- Australian specialist for S&P's supervised learning (quantitative value and momentum) driven investment models
- Data specialist for S&P proprietary RDBMS databases
- Feature engineered and cross-validated several supervised machine trading models: momentum, mean-reversion, analyst estimate investing, value arbitrage, value versus growth, quality and volatility driven strategies

Achievements:

- Used dimensionality reduction (PCA) to create hybrid risk model for the Chinese CSI 300 market.
- Co-authored white papers and seminar presentations on systematic value research