Robert Andrew Martin

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EDUCATION

UNIVERSITY OF CAMBRIDGE
Physical Natural Sciences
Undergraduate
October 2018 – Present

SJI-INTERNATIONAL
IB Diploma – 45/45
IGCSE – 9 A*
2009-2015 | Singapore

SKILLS

LANGUAGES
English – native
Spanish – business proficiency

PROGRAMMING
Proficiency
Python (especially NumPy, pandas, sklearn, Flask)
Experience
R • JavaScript • SQL• HTML/CSS
Exposure
Java • Mathematica • Solidity • Matlab

CERTIFICATIONS

- CT1 Financial Mathematics – Institute and Faculty of Actuaries
- Higher Certificate in Healthcare Support – SkillsFuture SG
- ClAiT Plus International Diploma

SOCIETIES

- Cambridge Blockchain Society – Venture Capital Director
- Hackbridge – Project Member
- Cambridge University Algorithmic Trading Society
- Cambridge University Finance and Investment Society
- Christ's College Tennis Team

LINKS

Github:// **robertmartin8**
LinkedIn:// **robert-a-martin**

EXPERIENCE

NOGLE LTD | Quantitative Analyst Intern
Jun 2018 – Oct 2018 | Taipei

- Project lead: using modern portfolio optimisation techniques to build smart cryptoasset allocations.
- Developed novel estimators of the covariance matrix which outperformed standard shrinkage methods in out-of-sample testing.
- Built and presented rigorous backtests, including custom slippage models and analysis of turnover.
- Investigated cryptocurrency market microstructure and worked towards building predictive high-frequency models using machine learning techniques.

SCI LTD | Full Stack Fintech Developer
Nov 2017 – May 2018 | Remote

- Built an MVP robo-advisor service from first principles using Flask and MySQL.
- Designed and implemented financial screens and portfolio optimisation strategies, integrated with the Interactive Brokers API.
- Conducted backtests for proprietary investment strategies, along with user-facing interactive data visualisations.
- Built a scraper to acquire financial data from US/Japan corporate reports.

SINGAPORE ARMED FORCES | Combat medic specialist
Jul 2016 – May 2018 | Singapore

- Completed the challenging 2-month Medical Response Force Conversion Course, involving continuous high-risk activity in a full-bodied chemical suit and gas mask, with constant emphasis on teamwork and command.
- Selected to become a specialist based on performance under pressure, with subsequent leadership roles in multiple military exercises with the Special Forces.

PROJECTS

PYTHON PORTFOLIO OPTIMISATION | python
Jun 2018 – Present
PyPortfolioOpt is my extensively-documented portfolio optimisation package, available on PyPI, that implements both the classical efficient frontier and modern improvements, along with novel experimental methods that I developed.

MACHINE LEARNING ON STOCKS | python, R
Feb 2016 – Present
Predicting stock returns by training ML classifiers on 15+ years of scraped fundamental financial data. A simplified version of this project has been open-sourced on GitHub, but my private branch is still actively developed.

ACADEMIC BLOG | HTML/CSS
May 2017 – Present
ReasonableDeviations is my academic blog which includes writings on quantitative topics, notes for various courses and textbooks, and summaries of journal articles.

AWARDS

2018	SJI-Foundation Christ's College Cambridge merit-based scholarship
2015	SJII Academic Award for the top academic student in the cohort
2015	SJII Subject Awards: Physics, Mathematics, European Languages
2014	Merit-based scholarship for the IB Diploma Programmme at SJII