# JOY TOLIA

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## SKILLS

Computing: Python, Java, q/KDB+, Matlab, Microsoft Excel, LaTeX, Bash, SQL, Git

## WORK EXPERIENCE

**Auguration** - *Senior Quantitative Researcher* July 2021 - Current

- Researching equity market neutral/statistical arbitrage alpha signals with holding period of hourly to daily
- Managing a team of researchers and developers
- Building and maintaining a graph based research platform using Java and Python
- Running simulations on ensembled signals derived from custom regression methods
- Conducting hyperparameter tuning for a multi period optimiser
- Built infrastructure for intraday trading signals including a tick market data service

**Mizuho** - *Quantitative Trader* June 2020 - July 2021

- Managed the eFX spot trading book
- Researched and analysed data to improve the eFX platform. This includes working with large data, backtesting/simulations, A-B testing, alpha signal generation, optimisation and markout analysis
- Guided the development team to improve the market making algorithms through quantitative modelling
- Established a code base in Python and q, for quantitative analysis and research

**Norges Bank Investment Management** - *Quantitative Trader* October 2017 - June 2020

- Researched, developed and ran systematic standalone trading strategies for spot FX using Python and Matlab. Focusing on strategies with a holding period between hourly and monthly
- Systematised the FX execution of the fund by building intra-day models balancing risk and costs
- Built a code base for backtesting hypotheses over multiple asset classes. Run time is optimised using object orientated code, parallelisation and dependency networks (graph based)

**Systematica Investments** - *Quantitative Researcher* September 2016 - September 2017

- Researched and generated systematic trading strategies for futures and forwards using Matlab. Working with asset classes such as FX, commodities, equity indices and fixed income with holding period of a week
- Implemented and maintained a market neutral cross asset portfolio combining multiple trading signals

**Royal Bank of Scotland** - *Graduate Quantitative Analyst* September 2015 - August 2016

- Developed and maintained the C++ library for the Balance Guaranteed Swaps trading team
- Worked in the corporate risk advisory team and conducted bespoke analysis to optimize corporate foreign exchange and interest rate risk exposures using Matlab

## EDUCATION

**Certificate in Quantitative Finance** - *CQF* January 2016 - August 2016

- Overall Mark: **98%**, Exam Mark: **97%**
- Received **Wilmott Award for Excellence** for best mark in final exam.

**University of Warwick** - *First Class MMath in Mathematics* October 2011 - June 2015

- First Year: **78%**, Second Year: **84%**, Third Year: **81%**, Fourth Year: **90%**