

High Frequency Quantitative Finance Engineer

Seeking Internships

DESCRIPTION

Currently Studying In Temasek Poly, Director List 17/18. 3.88/4 GPA.

Currently Learning and intending to work on: High Performance Algo Financial Engineering using bare metal programming in C on the Kernel TCP level and the use of Market Microstructure in High Resolution data and detailed company Fundamentals.

Currently Working On: Research and Implementation on a Quantitative Stock Trading System for Algorithms as a Final Year Project/Thesis.

Immediate Interest: Machine Learning, High Performance Computing and Quantitative Finance, listening to people talk about their experience and sharing their insights, blessing others, researching.

I love challenges, learning and creating new things/optimising things. I love the cutting edge.

Been Coding since 14 as a hobby, I am interested in things that improves life and society as a whole using technology. My favorite talking topics include strategy, philosophy and politics.

I aim for the best in everything and am motivated I do regardless of the nay-sayers as I believe life is short and we gotta make the best of it.

In my free time, i read and sometimes write on a multitude of topics, philosophy, politics, finance, economics, psychoanalysis, strategies and information systems (Algorithms, Web-scraper systems, Trading Systems, etc..)

SKILLS

Languages: C/C++ (Passion), Rust, GOLang, Bash, L^AT_EX, Java, C#, Javascript, Ruby, Python2/3, PHP, MATLAB, OCTAVE, CSS, Typescript, Coffeescript, Android

C/C++ Frameworks: BOOST, Proxygen, STL, Folly, Crow, LibCurl, Curl++, RapidJSON, nlohmannJSON, lwan, h20, LibUV/LibEvent, POCO, GNU, GTK++, QT, requestpp, libXML2, libtorrent

C/C++ Build Frameworks: Make, CMake, Ninja, GCC, G++, Clang, VCPkg, Conan

Python Frameworks: Scrapy, Request, PyPy, Cython, Flask, LXML (High Performance HTML Parsing), Pandas etc.....

Ruby Frameworks: RubyOnRails, Sinatra, jinja2, Mako, Jade

Javascript Frameworks: ReactJS, VueJS, Angular, jQuery, NodeJS, Puppeteer, Chrome Remote Interface, ReduxJS, ExpressJS,

Javascript Build Frameworks: Webpack, Babel, GULP, grunt

PHP Frameworks: Laravel, CodeIgniter

Java Frameworks: Android, Maven, Gradle, Minecraft Forge (Modding), TidyHTML, jSoup,

Javascript Supersets: CoffeeScript, Typescript, ES6 (Babel), ES7

CSS Supersets: SASS (with Compass), SCSS, Less, Stylus

HTML Supersets: Jade, Pug

Operating Systems: Linux (Ubuntu, Debian, Arch, Centos), UNIX, MacOS X, Windows 95/98/NT/2000/XP/7/8/10, Windows Server 2016/2018, Raspbian

Databases: Postgresql, Cassandra, HBase, TokyoCabinet, KyotoCabinet, LevelDB, RocksDB, MariaDB, MYSQL, Redis, MongoDB, ResolveDB ?

Applications: MatLab, GNU Octave, LabVIEW, L^AT_EX, OpenOffice, Microsoft Office/Office 365 (Word, Excel, Powerpoint), Photoshop, Premiere Pro, iMovie, Apple iWork(Pages/Numbers/Keynote)

Financial Applications: Bloomberg Terminal, Thomson Reuters Tick History (Deep), Thomson Reuters Data scope (Deep), Thomson Reuters Datastream, Interactive Brokers, ThinkOrSwim, MetaTrader

Miscellaneous: Web-Scraping, Optimizing Software, Chrome Websocket Server/Controller, Designing and Coding Complex User Interfaces, Leadership Skills, High Focus, Deep Work, Scrum/Kanban Practitioner

EXPERIENCE

Worldskills

Singapore

Medallion of Excellence Winner

Jun 2018 to August 2018

Qualifying Round Winner

Dec 2017 to Jun 2018

Participated in the Worldskills Singapore competition supported by Temasek Polytechnic. It is a competition where individual's skills in a certain area can be tested. In My case it was Web Design and Development.

The qualifying round is where students from Temasek Polytechnic competed to be the top 3 to have the chance to go to the National Rounds in which I won and go into.

The National round was similar however this time instead of competing against students from Temasek Polytechnic, it was the best top 3 students of each polytechnic. THE top 3 would then be able to move on to the International rounds in 2019. Unfortunately I was just shy of bronze and won the Medallion of Excellence instead which is given to individuals whose work met a certain standard.

AngelHack

Singapore

Main Ambassador and Organizer for Angelhack Global Series 2019

Jan 2019 to May 2019

Main Ambassador and Organizer for Angelhack Global Series 2018

May 2018 to June 2019

Co-Organizer for 2017

May 2017 to Jun 2017

In 2017 I had approach AngelHack to help for fun as I wanted to give myself a taste of event organization (to challenge myself in it) and more importantly, to network. Furthermore, the Main Organizer of Angelhack at that time needed help and hence I offered a hand. I ended up Organization Food and Beverages logistics.

In 2018, the Main Organizer has offered to pass the reins to be since he would be stepping on to bigger things and I accepted it in a decision to challenge myself to do even greater things than I did the year before. Thankfully, everything went smoothly with a higher attendance (172 People) and bigger location sponsor than the year before.

In 2019, I would be the Main Organizer again for the Angelhack Global Series Hackathon in Singapore.

Riverlife Church

Singapore

Drama Club Director, Script Writer, Actor

May 2013 to May 2018

Presentations Designer

April 2016 to June 2016

Acted in many Dramas and Directed/Script Wrote approximately 7 Short Dramas

Designed and created Presentation Slides for Lesson planned for the year

EDUCATION & TRAINING

Temasek Polytechnic

April 2017 to Feb 2020

Diploma in Information Technology, Specialization in Business Analytics

After 1.5 years leaving Singapore Poly, I finally had found a glimpse of my *raison d'être*

- IT Law and Ethics - Studied Singapore Law and Ethics for Computers.
- User Experience and Design - designed a user interface for a car music player, a Spotify redesign.
- Logic and Mathematics (Distinction) - Exams
- Statistics and Analytics (Distinction)- an in-depth analysis (10 000 datapoints per single metric) on the correlation of movie demographic, ratings online and offline and movie characteristics using Statistical Processes + Linear Algebra.
- Business Information Systems - wrote a detailed case study on Starbucks supply chain of *Bean to Cup* and the customer experience Starbucks presents to the customer using Information Systems such as delivery systems to meet the breakfast peak.
- Network Technology - planned a network system from scratch (hardware planning, wiring architecture, computer simulation of the architecture with a scaled down real life demo, etc) for an MNC.
- IT Security Essentials (A) - a detailed 70 pages case study of the Yahoo Data Breach. How it happened, what went wrong and the implications it might bring. How we could secure our systems better to prevent the same occurrence. / Examinations - Configured a Windows 10 and Redhat Unix to be secure

- Data Structures and Algorithms (Distinction) - using complex data structures, coded a bookshelf app with a prototype in-memory database with Python and ReactJS, Stylus CSS, Electron, Self Coded Scraper.
- Coding and Testing (Distinction)- Created a restaurant booking system with detailed mockups and application specification.
- Application Development Project (A) - Did not partake as involved in Worldskills.
- Digital Devices and Systems (Distinction)- Configured Windows Server 2016 with advanced features like User Generation and Setup via a Powershell Script as a personal extra feature.
- Secure Coding Practices - Did not partake as involved in Worldskills.
- Mobile App Development - Did not partake as involved in Worldskills.
- Software Quality Assurance (A) - Planned and coded in C# a detailed and high quality tests suite for a fictional company case study
- Critical Reasoning Skills (A) - Learned critical thinking skills and had the assignment of making the case for a topic of our choice. With my team, we prepared a persuasive argument for underground HDBs to combat overpopulation and land shortage.
- Leadership and Character - Had a case study of a leader in a movie and how he lead his team. + Present a case study of a non-fictional leader of our choice, we chose Donald Trump.
- IoT Application Development - Creating a IOT Device to detect washroom air toxicity and send the metrics towards a server. These metrics will then be displayed on a coded Javascript Frontend.
- Innovation Principles & Practice - In Progress
- Object Oriented Programming (Distinction)- A case study of a complex News Aggregate App that supports Payment, Publishers/Authors and self updated without human intervention through a web scraper system.
- Full Stack Web Development - Paper + Design and Implementation of a quantitative Stock Trading System with a Angular Frontend and a Microservices Backend which uses both C and NodeJS
- Microservices - Paper + Design and Implementation of a quantitative Stock Trading System with a Angular Frontend and a Microservices Backend which uses both C and NodeJS

Singapore Polytechnic – Diploma in Information Technology

Singapore April 2015 to Oct 2016

Decided to take a gap/break for 1.5 years to spend more time on myself and to reflect on my raison d'être.

Coral Secondary – Express Stream

Singapore 2010 - 2014

Improved O level T Score from 26 to 14 through vigorous daily studying alone for a year. Simply working my way through multiple O level Past year papers and books trained me to think fast, tackle the questions in an efficient way and to anticipate the type of question at a glance and respective answering structure. Particularly Excelled in E Maths and Physics.

PROJECTS

High Performance Algorithmic Stock Trading with a Microservices Architecture

– Designer, Coder — Oct 2018 to Present

High Performance Blackbox Microservices for Mathematical Analysis.

– Designer, Coder — Oct 2018 to Present

Programming Language for Mathematical Analysis

– Designer, Coder — Oct 2018 to Present

CERTIFICATIONS

Advanced Python

– Lynda, 2018

Microservices Foundations

– Lynda, 2018

WordPress Essential Training

– Lynda, 2018

Rewarding Employees

– Lynda, 2018

Computer Science Principles: Programming

– Lynda, 2018

Stock and bond markets

– *Lynda, 2018*

Algorithmic Trading and Stocks Essential Training

– *Lynda, 2018*

OTHER ACTIVITIES

SP Cycling Club and Road Team – *Part Time Helper and Participant* Singapore April 2015 to Present

Road cyclist in SP Cycling Club as well as the Road Team. Helped to facilitate Friday Night Rights (FNR) occasionally while I was studying in SP. Currently still go back weekly to cycle with the club as a participant (though studying in TP) and continue to help when there is a manpower shortage.

Coral Secondary Robotics Club – *Leader, Member and Competition Participant*

Singapore, Jan 2010 to Dec 2014

Taught junior club members how to code robots and make them using LEGO Mindstorm. Personally enjoyed it as a passion and past time after school to create and tinker with parts to create for example, a complex gear systems. Constantly took part in any robotics competition to gain experience, exposure and fun. Modified Our Robots to run programs created with industry standard LabView Software for precise robot control and the ability to tune it to its limits for maximum results in competitions.

White Sands Primary Scout – *Scout*

Singapore, 2004 to 2010

Was a scout during my whole Primary School education and learned brotherhood and friendship with similarly aged boys. We went to camps and built campfires. Took part in team building activities. Learned new skills like complex knot tying and survival skills.

Took Part in the 2008 Jamboree (global gathering of scouts) and was able to network with about 120 different scouts from different countries - a challenge that gave u a special badge for your uniform