CHAN JIUNN HWA
Experienced Tech Lead/Developer

- Full Stack Developer   • Solution Lead   • Project Management
- Fedex ITD Hall of Fame
- Solution Lead for Bank Client to launch 1st MAS Approved Retail FX Solution in Singapore
- Proven Experience in Multi-Domains(Logistics, FX Trading Solutions, Travel)
- System Thinking   • Innovative   • Strong Communications

Singaporean
Chinese
Male
12 DEC 1968

+65-87586493
zeonchan01@gmail.com

www.linkedin.com/in/zeonchan

github.com/jiunnhwa

https://theumbrage.sg
(A personal site to track news and items of interest, coded from the ground up with GoLang/Backend and JS/Frontend)

EDUCATION

Certificate in GoLang Programming — GoSchool-Ngee Ann Polytechnic — JAN 21 – SEP 21

- Structured Golang programming course conducted by Ngee-Ann Polytechinic covering advance concepts such as Concurrency (goroutines, and channels), Network Programming, Microservices, REST APIs, Docker Containerisation, System Testing and Monitoring, Continuous Integration/Continuous Delivery.
- As part of 'lifelong-learning' this course has equipped me with a tool to 'paint a new landscape'. In about 8 months, 8 programming projects using GoLang was completed.

✓ **ShopList App** - A simple console shopping list application built with Golang to manage a shopping list.

✓ **Console News Tracker** - Go Aggregator of Internet News(GAIN) is a console based News Gatherer. Users can increase their NQ(News-Quotient), in a quick, compact and distraction free manner. By aggregating multiple news websites, busy executives can still be up to date with current affairs. The concept originated from mine C# project created some years ago to keep track of fast moving crypto-news. This version has been re-written in Golang to follow news topic of interest - like Bitcoin, Tesla, Covid or Trump. It is also more performant as it uses concurrent goroutines, and requires no dependent .Net framework. It runs as a single executable with a MySQL backend.

✓ **Web News Aggregator** - NewsAgent(NAG) is a web-based based News Gatherer and Viewer, built upon the previous console system. This project has rich enhancement possibilities, including incorporating a microservices architecture and extending the UI to mobile or web client; topics partitioning, sentiment analytics, and so on.

✓ **Web News Tracker 2** - Pro-NAG is a secured and hardened version of NAG, including proprietary LOGASS - a logging-as-a-service to serve as a centralised logging backend, and proprietary AUTHASS - a authentication-as-a-service to serve as a centralised authentication backend.

✓ **API Microservices Project** - GO-CRUD-API is a web-based API microservice providing information and operations on course catalog.

✓ **API Testing Tool Project** - API-T-DROID is a web-based API microservice providing API testing services and test automation. Test suites can be functional, concurrency, load testing, etc. It is extensible to include other types of testing.

✓ **Messaging Platform As A Service** - MPASS is a project to build a new communications platform that centralises all outbound communications to clients. The goal is to have a single platform that users can send messages programmatically to customers, including messages such as one-time passwords, marketing messages, order updates, payment notifications, order delivery alerts. Messages format can be email, sms, whatsapp, etc. Current solution uses Twilio messagging API.

✓ **Logging As A Service** - LAAS is a http logging microservice to allow decoupled logging to a centralized logging service, as opposed to conventional file logging and shipping to Splunk. The project can be extended to become like a mini-Splunk with integrated log aggregation, analytics, and alarms, allowing reduction in total logging infrastructure cost and layers.

MBA(Strategic Management) — Nanyang Technological University — JUL 99 – JUN 03

- Dissertation was "E-Innovation Initiatives in the Logistics Industry", proposing Material+Information+Financial flows integration as the next quantum innovation leap. Material+Information integration was the innovation of Fedex/etc, leading to modern JIT supply chains.
- Wrote a marketing term paper on using Open Source Internet Information Gathering as a Competitive Intelligence Tool - which was used by the marketing professor as a basis for a paper published (https://www.emerald.com/insight/content/doi/10.1108/EUM0000000005555/full/html)
- Completed 24 modules versus requirement of 16 in 2.5 years versus 5 years.

Graduate Diploma in System Analysis — Institute of System Science (NUS) — SEP 94 – JUL 95

- SA course covering Languages, Database, and the full SDLC.
- Implemented "Project Reporting and Statistics System" during internship, a system for management to track project metrics.

Bachelor of Arts(Merit) — National University of Singapore — JUL 91 – JUN 93

- Majors in Philosophy and Sociology. Minor in Political Science.
- Sought to introduce Classical Physics concepts into Social Science.

SKILLS

Languages	RUST,GOLANG,C, C++, C#, PYTHON, VB.NET, VBA, ASP.NET,JAVASCRIPT,HTML/CSS,XML,FIX,JSON JAVA, GROOVY
Database	MySQL, NoSQL, MS-SQL, Sybase, MS Access, PostgreSQL, Oracle.
OS	Windows,Linux
Others	Docker,Redis,Selenium,Flask,NodeJS
Certifications	CCNA
	SMU Certified Blockchain Developer(Solidity,Web3,Truffle,Ganache,Zeppelin,Casper,Plasma)
	IBF-STS Data Science Certificate(Pandas,Data Analytics,Classification Model,Machine Learning)

SHOWCASE REPOSITORIES

/BTC-Predictor	**Price Predictor using Machine Learning (Regression Model)**	Jupyter/Python
/Rust-Actix	**Web & REST API Service**	Rust-Lang
/VaccCertTracker	**Block Chain Smart Contract**	Solidity,React
/MPASS	**Messaging REST Service with Admin Front-End**	Golang, Javascript,MySQL,HTML,CSS
/NewsGet	**News Aggregator**	Golang, Javascript,MySQL,HTML,CSS
/EPIC	**Scriptable API Testing Tool**	Golang, Javascript,SQLite,HTML,CSS
/ServiceBroker	**Load balancing and as a proxy server to database.**	Golang
/IPyNB	**Interactive Log Parser**	Python
/PyBot	**Python Crypto Trading Bot**	Python
/PySelenium	**Browser and Test Automation using Selenium**	Python
/BlazorNoteApp	**Blazor WebNote App**	C#,EFCore,SQLite,Razor,HTML,CSS
/MT4 EA	**MT4 Technical Indicator Algorithmic Trader**	MQL,C,C++
/MT4TradeCopier	**MT4 Trade Follower Service**	MQL,C#

Personal Project Portfolio for purpose of Continual Learning and Technology Exploration

A-H-A WebApp (2023)	Front-End/Back-End User System with Dashboard/Charts/Tables/Websocket demonstrating typical Line-Of-Business web application, and for prototype use of new landscape technologies(eg. htmx) **https://aha-fe-be-pg.fly.dev/**	• Nodejs, ExpressJS, Javascript(no framework), MVC model, Websockets • postgres-as-a-service(neon.tech), SQL, stored procedures • **htmx,** bootstrap and custom css • plotly charts • ejs for templating • fly.io for docker app hosting

EXPERIENCES

| Senior Software Engineer | Thales <DIS - Smart Cards, FR> | AUG 22 – NOW |

- Contracted to help improve Jenkins pipeline workflow.

- In the first month, improved a run pipeline by 10X++, from previous 3+ hours to less than a minute now; having analyzed that Groovy readJson does not scale with large json, and was resolved by removing the Python code that outputed the JSON node.

- Create statistics from job runs for optimization analysis, using C#/Linq to extract/transform/aggregate data to csv from trace files and logs, and then using Jupyter/Python for data analysis of outliers, and mean, max, min, modal.

- Provide a dashboard concept of comparing 2 test results in place of the current manual process of opening 2 browser pages. Data **Preparation** is via Python getting from Jenkins web page. **Processing** steps includes parsing Json objects embedded in the html DOM page, then cleaning and shaping it for dataframe, then merged using an inner-join, then applying pipeline of rules for data transformation/statistics and custom css styling to highlight values of interest. **Presentation** is pushed via Jinja templates to charts and datatable in html/javascript/jquery/css.

- Automated Regression Finder is a re-versioned tool I wrote in C# to read 2 results from Jenkins XML API, then using the commit hash to retrieve the changeset list from BitBucket REST GIT API, and then pulling the commits to re-compile and run for replay using a walk-backwards strategy to report the first regression point between these 2 build points.

- A ported version now uses Python to first produce an A/B report between 2 builds and publish it as a **JQuery DataTable/Plotly Chart** report for manual view. Concurrently, it also reproduces a regression list for auto-running a Regression Finder between the series of Git commits happening between the 2 builds, automating what developers had to do manually in terms of doing regression re-runs. The re-runs results are then aggregated as Json, and using Groovy's template engine is inserted into a **JQuery Pivot Table** webpage, enabling users' further analytical slicing - helping developers to better zoom into which code had introduced the breakage under which commits, which previously they had to compare side-by-side, the thousand of line items for each sequential re-runs. This entire Regression Finder re-run process is a parent Jenkins job coded using **Groovy/Java DSL pipeline API** syntax; it manages the distributed Jenkins flow, job states and runs; the parent job will dynamically create child jobs based on the regress list size, and has logic to break out of runs when the child run has a build status of all Green, or when runs finished through the regression list, or when it hits a max allowed run setting. For maintainability, the Groovy code was written as OOP/Classes, and the classes are decorated with **@Builder AST** annotation to transform into a **Fluent API** syntax.

| Senior Software Engineer | Thales <Defense & Aerospace MNC , FR> | JAN 22 – NOW |

- Contracted to help debug, troubleshoot and maintain existing C/C++ software in a Linux environment.

- Developed Pandas/Python log analyzer to interactively query semi-structured logs, that can be more than 1M lines, and spanning across multiple rotated log files.

- Exposure to MODBUS/SCADA protocols which interface to various control equipment for the NEL MRT line.

- Surfaced old, obscured issues in C/C++ code base, like redundant lines, un-reachable codes, double negative/escaped logic, state machines issues, etc

- Reverse-engineer deep-nested-if-statements by reverse engineering into Pseudo-Code as well as mapping to a manually created Source Graph; to help decode the the 100K+ LOC, as compared to linear code scanning.

- Help troubleshoot CORBA/TAO issues using wireshark analysis of GIOP network pcaps when switchover to new Huawei switches.

- Narrow possible root cause of old intermittent bug in tunnel's ventilation fan as possibly due to leaky State(Primary/Standby) issues.

- Exposure to JIRA for issue management, Tortoise for SVN and Jenkins for CI/CD, and Daily Stand Ups for Agile Process.

Solution Consultant — AugustOne <Independent Consultant, SG> — JUN 16 – DEC 20

- Developed "*Search and Cache*" engine for travel startup using **Golang/NoSQL**, fetching by criteria data from Expedia/etc, then sort, transform, store and publish responses as REST API to downstream searches, so as to achieve time and cost savings..
- Developed *FX Algo Trader* using **MQL(C/C++)** for Trade Management and **C#/MySQL** for Data and Signal Analytics.
- Developed *Copy Trading Plugin*(**C++**) for HK FX Broker on MT4 server for hedging and copying of trades, including algorithm to determine STP hedging via FIX Bridge, or trades warehousing.
- Developed *Trade Replicator* from Master MT4 client to Followers clients using **MQL(C/C++)/C#.**
- Consult *MT4 Implementation Plan* for Beijing-Based FX Broker(Tigerwit), including STP solutions, Trade Latency Optimisation, Servers Co-Location, Copy Trades and Warehousing.
- Source, Provision and Maintain MT4 Trade/Windows servers for brokers.

Solutions Manager — Integral Development Corporation <Fintech, US> — APR 12 – MAY 16

- Manage solutions delivery to be on time, on budget, with high levels of customer satisfaction, and to compliance standards.
- Assist Sales team during pre-sales by providing customer training and setup of demo/UAT.
- Provide project management and technical oversight during prototyping, testing and rollouts.
- Consult on trade workflow, on post trade STP back office workflow, using STP messaging formats such as Kondor+, FIX, FINXML.
- Advice on infrastructure, including server sizing, LAN/WAN requirements, connecting to NY4 DC using Leased Lines/X-Connect.
- Provide implementation and troubleshooting expertise on FIX messaging protocol and APIs.
- Lead key technical role in pre-sales and solutioning in competition against 2 other vendors, to create and propose end-to-end solution for entire trade chain from market making, to distribution, to retail trade.
- Lead TRM documentation for MAS+BNM addressing policy compliance for data security, privacy, and other regulatory aspects.
- Lead documentation of DR/BCP Plan mapping our disaster recovery and continuity processes.
- Lead in creating technical diagrams and write-ups on our software architecture, network topology, business processes, as well as security measures such as IDS cum firewall setups.

Senior Manager — MetaQuotes Software Corporation Pte Ltd <FX Platform, RU> — JAN 12 – APR 12

- Evangelist for MetaTrader4/5 range of products.
- Present MT4/5 platform/solutions for Trade Talks/Seminars.
- Conduct educational programmes on Automated Trading using MT terminal for retail pubic, using **MQL, C#**.
- Manage integration of our platform to Liquidity Providers such as Currenex, SMX, FX Brokerages, or Hedge Funds.

Senior System Analyst — GKGoh Pte Ltd <Stock Broker, SG> — FEB 11 – DEC 11

- Maintenance of Back-end Trade Settlement System using **C#/MSSQL.**
- Implementation MT4 Server including server and network sizing, fallback and redundancy processes.
- Provide Level 3 Support for in-house Applications.

Project Engineer — NCS(National Computer Systems) Pte Ltd <IT Vendor, SG> — MAR 10 – JAN 11

- Deploy, maintain and upgrade desktop PCs, notebooks, servers.
- Upgrade and patching of servers.
- Troubleshoot telephone, computer and internet connectivity issues.
- Provide training and 2nd/3rd level support to helpdesk on technical issues.

Lead Consultant — Enstellium Pte Ltd <IT Vendor, SG> — JUL 06 – FEB 10

- Create 3 years IT Strategy Plan for one of the top local Gifts & Hamper SME Company, including a new business implementation plan to integrate online e-commerce and offline retail(clicks & bricks).
- Technical evaluation and implementation of PABX, Digital Copiers, POS System, Server, Desktops.
- Build customized Software Solutions including Web(**ASP/Javascript**) and Thick Clients(**Visual Basic/MS Access**) for Sales Order Entry, Warehouse and Inventory Management, Delivery Management System, CRM, and Accounts Receivables).
- Design telesales call/command centre including floor, network and computing planning.
- Engineer warehouse processes for system automation of inventory and delivery processes.
- Implement support levels for 1st level and 2nd level Application and Hardware Support.

Team Lead — Federal Express Asia Pacific Pte Ltd <Logistics, US> — APR 96 – JUL 06

- ITD Hall of Fame for HK Express Broker(HEATS); and Taiwan Express Broker(TEB).
- Analyse and re-engineer warehouse clearance processes leveraging on IT Solutions resulting in faster and better workflows.
- Recruit, train and manage a team of contractors.
- Improve Brokerage Clearance Process by more than 100% for Singapore Express Broker(SEB).
- Increase team productivity by more than 100% through team-building and people management.
- Introduce processes and systems to reduce support calls by more than 100%.
- Developed clearance operations systems that attain 99.9% service delivery target level.
- Planned and implemented wireless scanning system(**C/C++**) with scan throughput of 7000 pieces/hour for SG airport clearance.
- First Air Express company to implement XML-EDI based trade declarations(Java) to SNS(Crimsonlogic).
- Developed 3-tier Customs Brokerage Systems using:
  - Database Backend: **Sybase 11**
  - Application Layer: **Java** running on Tomcat server
  - Presentation Layer: **JSP** web client on Apache with Kodak Image ActiveX for fax manipulation during Declaration process.

Teacher — Ministry of Education(Singapore) — JUL 93 – AUG 94

- Taught English/Physical Education in a secondary school.

BMT Instructor — National Service — MAR 87 – SEP 89

- Infantry Section Leader.
- Trainer in the consistent Best Platoon of Best Company of the School.
- Invented techniques to improve soldier performance in terms of marksmanship, physical and mental endurance.

Deliverying Outstanding Solutions On Time On Target, Always.

AWARDS & ACCOLADES

Hall of Fame: Fedex's Highest Award	Bravo Zulu - Mil-Slang for 'Good Job'

Inter-Office Memorandum

Date: December 9, 1997 — To: Chan Jium Hwa

From: Dennis H. Jones — cc: Seng Yoon Chea

Subject: ITD Hall of Fame

Congratulations on being selected to the ITD Hall of Fame.

I personally want to thank you for your significant creative and innovative contribution to the Taiwan Warehouse System and Taiwan Express Broker System Team.

It is people like you that will take us through the 1990's and it is my pleasure that we are on the same team.

A luncheon will be scheduled at a later date to recognize your efforts.

I look forward to seeing you.

My sincere best wishes.

Dennis H. Jones

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09 September 1997

INTER-OFFICE MEMORANDUM

From : Roy Beard — To : Chan Jiunn Hwa

cc : Denise Wood / Chea Seng Yoon
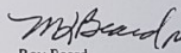
Re: **BRAVO ZULU**

I would like to express my sincere appreciation to you for your contribution throughout the entire Taiwan Warehouse System Project. Yours hard work and commitment have made it possible to complete this project in such a short timeframe and within budget.

You have provided superior service to APAC/ITD Systems Development with professionalism and dedication that truly exemplify the spirit of Federal Express.

In recognition of your outstanding efforts, I would like to take this opportunity to present to you this Bravo Zulu and a token of US$200.00 for the exceptional effort.

Best Regards,

Roy Beard
Managing Director, Systems Development
Asia Information & Telecommunication Division
Tel: (65) 390-5530
COMAT: SG/SIN/HQ

1999 — MBA: E-Strategy & IT Planning

Proposed an E-Strategy by integrating Information and Financial Flows and a high level view of the proposed model.

Adding Financial Flows to existing Material and Information Flows completes the Trade Cycle.

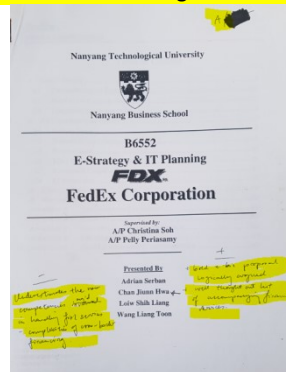- Bold e-biz proposal
- Logically argued
- Well thought out

Nanyang Technological University
Nanyang Business School
B6552
E-Strategy & IT Planning
FDX. FedEx Corporation
Supervised by: A/P Christina Soh, A/P Pelly Perianamy
Presented By: Adrian Serban, Chan Jiunn Hwa, Loiw Shih Liang, Wang Liang Toon

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1999 — MBA: Organizational Design, Learning & Change

Proposed the idea that one factor for a learning and innovative organization is that ironically it has to have 'idle' hours. Organizations that maxed out their employees' labour may be quantitatively productive but not qualitatively innovative.

Organization Design, Learning and Change has to be Integrative - Process, Structure, Culture, Technology.

- Very integrative set of recommendations
- Excellent
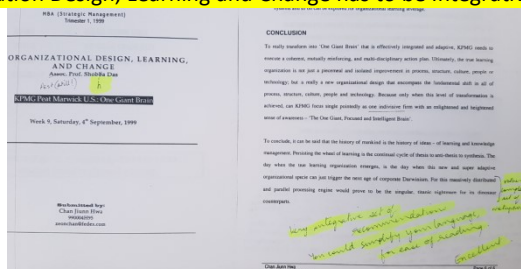
1992 — SC 303: Ethnic Relations

Under-graduate Sociology that I sought to cross-apply classical Newtonian Physics concepts into the analysis of social phenomena - in this case, social group relations and dynamics. It is likely revolutionary back then and perhaps even today.

Understanding such group dynamics is useful for Team Management.

- Brilliant
- Original
- contemplative
- Extremely Analytical
- etc
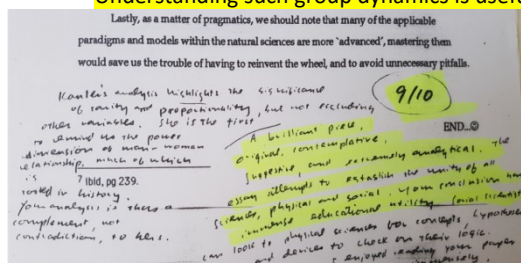
Evidently Innovative and Cross-Domain Capable.