LI, KIN FUNG (CALVIN)

(+852) 68905323 ⋄ Email: kfcalvin@yahoo.com.hk
LinkedIn: Calvin Li (https://www.linkedin.com/in/calvin-kin-fung-li/)

WORK EXPERIENCE

Proprietary Blockchain Data Analysis Jun 2022 - Present
Data Analyst

- Extracted trade volume and TVL data from AMMs on the Ethereum blockchain
- Analyzed arbitrage opportunities and market efficiency
- Compute and visualize statistical metrics in Python
- Techniques: FFT (Fast Fourier Transform), piecewise linear regression, etc.

Flurry Finance Jun 2021 - Feb 2022
Software Engineer

- Developed **Flurry Protocol**, a **cross-chain DeFi yield aggregator**
- Implemented **optimization of DeFi lending portfolio**, up to **2x return** of naive algorithm
- Programmed smart contracts and scripts for yield farming, staking, tokens, trading, price oracle
- Integrated with popular DeFi projects (Aave, Uniswap, Chainlink, Venus, Alpaca, Rabbit, etc.)

EDUCATION

The Hong Kong University of Science and Technology (HKUST) Sep 2019 - May 2024
Dual Degree Program: BEng(COMP) & BBA(GBM)

- Planned 3rd major in Electronic Engineering, minors in Mathematics, and in Robotics
- CGA: 3.94/4.3 *(top 3%)*
- Activities: Academic Secretary (DDPOC 2020-21), Student Ambassador (IPOSA 2020-21)

Eidgenössische Technische Hochschule (ETH) Zürich Feb 2022 - Aug 2022
Semester Exchange: Computer Science

- Grade: (pending)/6.0
- Activity: Participant, The Alternative@ETH Zürich
- A student society for technology, e.g. Linux, bash, console, file system, privacy and security

PLK Centenary LSC Mem. College Sep 2013 - Jul 2019

- HKDSE: 5** in Chinese, Math, M2, Physics, Chemistry and Economics, 5* in English *(top 0.2%)*

TECHNICAL SKILLS

Programming Languages	Java, Haskell, C, C++, Solidity, Python, JS, TS, MATLAB, etc.
Computer Science	OOP, Functional Programming, Algorithms, Formal Methods, ML, Smart Contract & DeFi, Database, Networking
Electronic Engineering	Signal Processing, Control Theory, Circuits, Embedded Systems
Finance	Markowitz Portfolio, Factor Models, Financial Asset Valuation
Math	Discrete Math, Linear Algebra, ODE, Probability

(full portfolio at GitHub: https://github.com/StardustLID/StardustLID)

EXTRA-CURRICULAR EXPERIENCE

Robocon Subteam, HKUST Robotics Team Dec 2019 - Jun 2021
Team Leader, Senior Hardware Engineer ← Junior Hardware Engineer

- **Multiple champions** and other awards in International and Regional Robocon 2021 and 2020
- Managed robot R&D progress for 30+ mechanical, hardware and software engineers
- Prepared game plans for robotic archery (2021) and rugby (2020)
- Circuit design, routing, electronic R&D (laser ADC, regulators and converters, etc.)

UBS Zürich HQ Dec 2020 - Jan 2021
Student Analyst (Team Captain, AI Developer)

- Prototyped a ML-based **fintech startup prediction tool** with **70% accurate funding patterns**
- Data pipelining of *Crunchbase* dataset
- Models and methods: hypothesis testing, K-means, PCA, decision tree, regression

PROJECTS

Formal Verification of Java Project Spring 2022
Rigorous Software Engineering @ETH Zürich

- **Numerical** and **pointer analysis** in **polyhedra abstract domain**
- Handled arithmetic, boolean, branch and loop expressions on integers
- Tools used: Apron, Soot, SLF4J, Logback, JaCoCo, Maven, Docker

Reliable Transport Layer Spring 2022
Computer Networks @ETH Zürich

- Implemented **sliding window** over User Datagram Protocol (UDP) in C
- Reliable against packet loss, reordering, duplication and corruption
- Features: cumulative ACK, sender and receiver buffer, timer and retransmission

Digital Audio Player (DAP) Fall 2021
Introduction to Embedded Systems @HKUST

- Circuit design in Altium, programmed in C with STM32 toolchain
- DAP functionalities: MP3 and WAV support, audio codec and equalizer, FATFS file I/O
- Features: text-based UI, encoder, system clock, interrupt, button, LED

Operation H (Top-down Shooter Game, Inspired by *Twilight Wars*) Fall 2020
Honors OOP and Data Structures @HKUST

- Programmed in C++ with Qt as GUI framework
- Features: A* path search, bullet trajectory and collision, map height system, camera
- Design patterns used: singleton, flyweight, strategy