

Curriculum Vitae - Liam A. Faruq

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Personal Profile

Software engineer with 8+ years of experience across TradFi and Web3, specialising in Rust, distributed systems, and blockchain infrastructure. Proven track record in delivering low-latency, high-throughput backends with strong concurrency, fault tolerance, and observability. Skilled in scalable APIs, gRPC/WebSocket services, and time-series/data pipelines, with hands-on expertise in SQL/NoSQL databases, caching, and cloud-native deployments (Kubernetes, AWS). Experienced in designing and deploying secure smart contracts (Rust/Anchor, Solidity) and integrating with DeFi/trading protocols. Proficient in Rust, Java, TypeScript, and C/C++, with deep knowledge of concurrency and performance optimisation. Active contributor in the Solana and Ethereum ecosystems through ETHGlobal hackathons, SuperteamDAO, and Turbin3 Builders, collaborating with leading teams on interoperability and DeFi innovation.

Educational Qualifications

Oct 2011 – June 2015 University of Nottingham – Sponsored by Siemens plc MEng Electronics and Computer Engineering (2.1)

Work Experience

Aug 2024 - Current: Blockchain Developer Solana/Ethereum, Contracting (Clients: Asymmetra Labs Ranger Finance)

- Worked with six different clients within the solana/superteam ecosystem from DeFi/GameFi/Prediction Markets
- Integrated Ephemeral Rollups (Magicblocks) for high volume bets/liquidations using Anchor Rust and Rust Backend
- Integrated Privy/Supabase auth (ECDSA with SHA-256) with Rust Axum API for wallet api orders against Drift/Jupiter/Phoenix
- Built Perpetual Dex indexing services with Rust Axum Tokio, streaming real-time orders over gRPC and sinking to Clickhouse DB
- Created concurrent trading bots for Raydium/Jupiter with call signals for token bondings on Pump.fun using Rust and Shyft gRPC
- Built a fullstack AI token launcher on Orca single sided pools with Warpcast/Farcaster in Typescript, Nestjs, React Vite on AWS
- Created a perpetual dex order management system (Drift/Jupiter/Phoenix) for delta neutral hedges
- Building Fullstack Solana/EVM Dapps with Anchor Rust, Foundry Solidity, Nextjs, Nestjs, Web3js Viem and Typescript

Jan 2024 - Aug 2024: Senior Full Software Engineer, Caplin Systems

- Developing FX/Commodity Trading tools in rust, kotlin and react redux for clients such as Westpac, FifthThird and Santander
- Created a reactive rust service to handle settlement Instructions for commodities with Axum, Tower middleware
- Enhanced UI Pricing utilities such as swap ladders, tiles and price feeds using react redux typescript

Jan 2022 - Jan 2024: Full Software Engineer, Deko Pay Ltd, London

- Full Stack development to integrate new lenders (ie BNPP) into a retail brokerage platform for Buy now Pay later
- Creating new frontend wallet widgets (Typescript, React, Redux, Story book) for merchants websites to interact with the platform
- Building persistence microservices with JPA/Hibernate/QueryDSL/Flyway Postgresql, Redis caching, Java 17

Apr 2019 - Dec 2021: Associate Software Engineer, Rates Pricing, JP Morgan Chase, London

- Developing and enhancing a Rates pre-trade pricing application in core Java 8/11 with concurrency
- Migrating and modernizing microservices into private cloud using Spring boot/integration, Kubernetes, Cloud Foundry, Jenkins
- Developed/designed an OOP solution on financial messaging for OIS/IRS/Swaptions/Midcurves using FIX/FPML

Aug 2017 – Apr 2019: Associate Developer, Data Services, Natwest Markets, London

- Building trade event feeds, batch processing, aggregations in Guice, MongoDB, Zookeeper, Flink and KafkaJava 8/11
- Fixing real time bugs and writing up regression tests using Mockito, Hamcrest and Junit4

Aug 2015 – Aug 2017: Graduate Developer, Data Services, Royal Bank of Scotland, London

- Automating the production of KPI data through Powershell, Bash, Python, SQL*Plus, PL/SQL scripts
- Building an api layer on Java Oracle Coherence for fetching various MTM Data to meet regulations ie Brexit stress

Jul 2014 – Aug 2014: Intern, Siemens IA and DT, Motion Control Dept, Manchester (E3 Sponsorship)

Jul 2010 – Aug 2010: Assistant Engineer, ARM plc, Cambridge (Nuffield Bursary Scheme)

- Programmed an ARM mbed (c/c++) LPC1768 with a MAX7456 module to write overlay text onto a display unit (SPI)

Professional Training and Certification

Training: Oracle SQL, LINUX/UNIX, Lean Management, Advanced Java Programming, MongoDB, Kubernetes, Ethereum, React, Typescript, Encode Solana, Encode Zero Knowledge, Turbin3 Solana Builders, Turbin3 Magicblock, Turbin3 Advanced Solana Runtime

Certification:

2021 CKAD Certified Kubernetes Application Developer Cloud Native Computing Foundation

2018 M101J MongoDB for Java Developers MongoDB University

2016 Lean Management Cardiff University

University Studies

Course Modules

Year 1 - Introduction to Real-time systems, Introduction to Computer Engineering, IT Infrastructure

Year 2 - Software Engineering Design, Computer Communications and Networks, Telecommunications, Embedded Computing

Year 3 - Computerised Mathematical Methods in Engineering, Web Based Computing, Engineering Software: Design and Implementation

Year 4 - HDL for Programmable Logic FPGA, Hardware Accelerated Computing, Applied Computational Engineering

Projects

University - Masters Final Year Project (Parallelising and Designing Transmission Line Modelling across different Hardware Platforms) - using CodeBlocks IDE with g++, Linux Ubuntu, Microsoft Visual Studios with MinGW, Sublime Text 3, NVCC, Matlab

- Implemented and parallelised an electromagnetic simulation (TLM) on a shared(NVIDIA Tesla C2050 GPU) and distributed (supercomputer) system using C++/CUDA/MPI/OpenMP, created libraries
- Created libraries for triangular/cubic meshes in C++ for designing Carbon Composite Airplane shells and Microwave Filters
- Parallelized numerical methods and algorithms (such as interpolation, rectangle rule, prefix sum, TLM) across pool of threads

RBS/NWM - Java Optimising Datafabric/ODC Un-Eviction -8.0 JDK, git, TeamCity, Mongo, Oracle SQL

- Developed a multi-threaded feature to un-evict transacted data from database to cache, for MO trade amendments
- Used oracle coherence distributed caches to parallelize partitioned data from db to cache nodes, scaling up to 85 RHEL servers

JP Morgan Chase - C++ Bond Pricing Feeds, git

- Developed a multi-threaded feature to un-evict transacted data from database to cache, in turn saving hrs for batch processing
- Used oracle coherence distributed caches to parallelize partitioned data from db to cache nodes, scaling up to 85 RHEL servers
- Built knowledge on Tibco EMS and JDBC/SQL/jackson serializer, MongoDB, mockito, hamcrest and Guice

Deko Pay Ltd - Full stack Java Spring Boot/React Typescript Nextjs BNPP Loan Offerings - 17/21 JDK, git, Jenkins

- Created a data microservice with flyway, postgres, hibernate, redis and spring boot for loan offer retrievals with rates logic
- Websocket connections for loan updates from lenders, with real time event feeds, setting up kafka brokers/durables
- Built a rates loan calculator frontend, integrating with loan offerings in react and nextjs

Caplin Systems - Full stack Rust/React Typescript - Commodities Settlement Instructions

- Built a reactive microservice to handle real time settlements for clients using rust and SOAP
- Created a frontend to execute settlements and developing a portfolio view for trade event subscriptions in react redux

Epochfi Labs - Backend Rust, Geyser Yellowstone gRPC, Axum, Tokio - Memecoin trade call signal (Stealth)

- Designed and built a rust backend for parsing token bonding events from pump.fun
- Integrated a trade volume tracker for certain tokens in Raydium, metoera, orca and pump.fun with redis caching
- Developed and enhanced trading algorithms against dexes with back testing and built indexing services on Clickhouse

- Full stack Solana Dapp, Rust Anchor with React Nextjs - Predictions Market application for Token Pricings (Stealth)

- Designed a scalable solana escrow program integrating with Pyth Oracle to allow traders for betting on price movements
- Created an interface with price feeds/trends with websockets interacting with the Solana Program (smart contract)

Hackathons - Finalist EthGlobal New York 2023 - Built a telegram bot to perform Crypto transfers on EVM using facial recognition

Achievements and Extracurricular Activities

2010 CREST Award (Gold) Nuffield Bursary Foundation

2009 Duke of Edinburgh Award (Silver) Comberton Village College

2008 Duke of Edinburgh Award (Bronze) Comberton Village College , UKCC Level I Cricket Coach ECB Coaches Association

2007 Cricket Young Leaders Award ECB

Skills and Other Interests

Languages: English (Fluent), German (Basic)

Sport: Played cricket for South Cambridgeshire District

Hobbies: Playing guitar, Media, Music, Android, Arduino, Rubik's cubes, NFT, Ethereum

References - Available on request