

Darren Li

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EDUCATION

University of Waterloo

Candidate for Bachelor of Software Engineering

- 6X Term Dean's Honour List
- Courses: Compilers, Advanced Algorithms, Big Data, OS, AI, Concurrency, OOP, Databases, Networks

EXPERIENCE

Citadel Securities

Software Engineer (Realtime Observability and Monitoring) Aug 2023 – Oct 2025

- Architected a C++ distributed in-memory streaming database with sub-second custom query alert evaluation for 100+ new users across 5+ trading desks, enabling the firmwide 10-minute alerting SLA
- Designed a client library for pattern-based alerting that reduced false alerts by 10,000+ annually (70% YoY reduction) across 5+ teams, accelerating SRE response time from 7m to 2m
- Saved \$20,000/month and reduced developer toil by 10 h/week by optimizing database deployment/configuration and deprecating 4 legacy services, reducing operational complexity

Meta

Software Engineering Intern (Ads Delivery) May 2022 – Aug 2022

- Enabled feedback loop of ad ranking models by aggregating prediction metrics into analyzable databases, increasing accuracy by over 10%,
- Developed code test coverage tool to accentuate testing of highly modified files, onboarding 25+ teams

Citadel Securities

Software Engineering Intern Jan 2022 – April 2022

- Designed database grammar and parser to interface with custom in-memory streaming database, enabling clients to subscribe with queries to data records and stream over 100,000 results/second
- Architected multi-threaded service that consumes from Kafka and writes to distributed ClickHouse database at over 2,000,000 messages/second, enabling historical queries and cold storage for compliance

Salesforce

Software Engineering Intern (Commerce Cloud) May 2021 – Aug 2021

- Spearheaded design of notification database models and APIs to provide real time deployment updates for customer applications, serving over 50+ project managers
- Threat modelled and migrated CI/CD pipeline to Jenkins to guarantee SOC and PCI security compliance, saving up to 30X in costs for resolving vulnerabilities

Genesys Laboratories

Backend Developer (Speech Recognition Connector Team) Sept 2020 – Dec 2020

- Led the development of enabling high throughput publishing of text transcription results to other services, transmitting over 40000+ Kafka events per minute, by designing a Java concurrent task scheduler

PROJECTS

SFTP Remote Server File Explorer – Java

May 2021

- Designed remote server file explorer that allows for navigation, editing (auto upload changes), renaming, deletion, and drag and drop to and from local explorer to optimize workflow involving remote server

EzCollab – Express, WebRTC

Mar 2020

- Launched screen sharing service to enable synchronous drawing (HTML canvas) on a screen share video stream and collaboration with over 20+ other web users using Socket.IO, Express server, and WebRTC

Hackathons: MakeUofT 2019 (2 category wins), uOttawaHack 2019 (4th place overall)

SKILLS

Languages: C++, Python, Scala, Java, JavaScript, SQL, C, YAML, HTML

Tools/Frameworks: Kubernetes, AWS, Kafka, Git, Bazel, ANTLR4, GTest, Grafana, Jenkins, Django, Mockito, Docker

Other Skills: Linux, GitHub, CI/CD, Data Pipelines, Clickhouse, OpenAPI, Jira, Postman

Interests: Cooking, Personal Finance, Coaching, Volleyball, Badminton, Music, Video Games