

# Noredeen Al-Zu'bi

noredeen.github.io

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## EDUCATION

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### University of Waterloo

Waterloo, ON

- Bachelor of Science in Computer Science, Honors Co-op

Sep 2020 – Apr 2025

Crown Prince University Scholarship – Full-ride.

- **Classwork:** Compilers, Operating Systems, Data Structures & Algorithms, Database Management, Object-oriented Programming, Functional Programming, Computer Architecture, Graph Theory.

## EXPERIENCE

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### Notion

San Francisco, CA

- Software Engineering Intern – Developer Infrastructure

May – Aug 2024

- **Language Server Observability:** Instrumented telemetry within the TypeScript language server, emitting over 2.5k metrics per hour across 300+ developer machines to provide granular insight into the code editing experience. These metrics were used to identify and resolve dozens of development tooling regressions.
- **CI Modularization:** Designed and implemented the CI task execution framework within Notion's custom TypeScript build system. Migrated all unit tests to the framework which caused a 50% reduction in the monorepo's average CI time.

### Temporal

Bellevue, WA

- Software Engineering Intern – Developer Infrastructure

Jan 2024 – Apr 2024

- **Webhook Gateway:** Enabled declarative webhook ingress across all teams by building, deploying, and managing a Temporal-backed Go webhook gateway which processes hundreds of webhooks daily to power internal tools.
- **Infrastructure Tooling:** Improved reliability of critical internal tools (Kubernetes rollout approvals, on-call querying bots, paging triggers) by migrating them to serverless architectures powered by my webhook gateway.

### Modern Treasury

San Francisco, CA

- Software Engineering Intern – Payment Rails

May 2023 – Aug 2023

- **Ingestion Concurrency:** Addressed 2 high-severity race condition incidents by introducing object locks and automatic de-duplication, unlocking 10x increases in throughput and saving \$40,000 in damages per incident.
- **Data De-duplication:** Improved the reliability of data importers by making de-duplication logic declarative instead of procedural via a Ruby DSL, removing all known de-duplication bugs in bank import pipelines.

### Modern Treasury

San Francisco, CA

- Software Engineering Intern – Payments Platform

Jun 2022 – Sep 2022

- **Micro-deposits:** Protected customers from losing more than \$5,000 per month from unrecouped account verification micro-deposits by implementing simultaneous debit and credit transactions, complying with NACHA.
- **Data Staleness:** Reduced per-month inbound support ticket frequency by 35% through an alerts early warning system that catches stale balance data before effects propagate downstream to customers as errors or bugs.

## PROJECTS

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- **C-flat Compiler:** A maximal-munch scanner and recursive descent parser for a near-complete subset of C99, using custom-built trie data structures for extensible keyword scanning.
- **LetsMuk (2nd Place DeltaHacks 7):** A Ruby on Rails truth and synchronization service which a Flutter video chat app used to fetch most recent metadata and as a proxy server to the Agora Video API.
- **minisqlite:** A light SQL memory store which contains an SQL parser, execution engine, and in-memory storage infrastructure, written in C using only the standard library.

## PROGRAMMING SKILLS

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- **Languages:** Go, TypeScript, C, Python, Bash, Ruby on Rails, Scala, SQL, Rust, Java, Arm Assembly.
- **Technologies:** Git, AWS (EC2, RDS, WAF, ELB), Kubernetes, Helm, Terraform, Prometheus/Loki/Grafana, CircleCI, Docker, PostgreSQL.