

Andre Arcaina

Software Engineer | Full Stack Developer

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EXPERIENCE

ENVIRONMENT AND CLIMATE CHANGE CANADA | SOFTWARE ENGINEER INTERN

June 2025 - Present | North York, ON

- Prototyped a **Go**-based command line interface to analyze **10+ codebases** for **code composition, language breakdown, dependencies**, and **Git** information.
- Expanded the prototype into a dashboard using **Next.js** and **Supabase**.
- Migrated **5,000+ lines** across **5+ legacy Java modules** from **javax.*** to **Jakarta EE 10**, refactoring deprecated APIs and resolving **300+ compiler warnings**.
- Modernized legacy web apps from **JSF 2.2** to **Jakarta Faces 4.0** and **PrimeFaces**.
- Reduced **Apache Tomcat build time by 33%** by migrating from **Ivy** to **Maven**.

UNDERGRADUATE SCIENCE SOCIETY OF TMU | BACKEND ENGINEER

January 2025 - Present | Toronto, ON

- Designed and implemented **8+ RESTful CRUD API endpoints** for **users** and **items** databases, adhering to **CLEAN architecture** for maintainable, modular code.
- Developed and executed **20+ unit and integration tests**, increasing project test coverage by **75%**, and ensuring high reliability for core business logic.
- Leveraged **SQLc** for type-safe, performant database queries, and integrated **OpenAPI (Swagger)** schemas to auto-generate Go server code, streamlining development and enforcing API consistency.

DATAKINETICS | SOFTWARE ENGINEER INTERN

May 2024 - Aug 2024 | Ottawa, ON

- Built an MVP using **Java** and **Spring Boot** to convert **COBOL copybooks** to **JSON**.
- Enabled users to upload copybooks and visualize with **DataTables** and **jQuery**.
- Developed and documented a **Postman test suite** of company APIs.

PROJECTS

FAFNIR | GO, NEXT.JS, POSTGRESQL, GCP, DOCKER, KUBERNETES, RABBITMQ

GitHub

- Architected a **scalable** and **modular microservice backend** with an **interactive web user interface** for a trading platform application.
- Developed a custom security service behind a **GraphQL API Gateway** for role-based authorization, and an auth service issuing **JWT** and **CSRF tokens** via **HttpOnly cookies** for frontend authentication.
- Used **gRPC** and **protocol buffers** for efficient, type-safe interservice communication, enabling scalable and performant microservice interactions.
- Implemented monitoring and observability with **Prometheus** and **Grafana**.

VIVID FITNESS | PYTHON, JAVASCRIPT, DJANGO, NEXT.JS, TAILWINDCSS, SUPABASE

GitHub

- Implemented **role-based JWT authentication** with **HttpOnly cookies** and fine-grained permissions using **Django REST Framework**.
- Designed a real-time chat system using **Django Channels**, and **WebSockets**.
- Received a **perfect project grade**, resulting in a **4.33 course average**.

SKILLS

LANGUAGES

Go • Java • Python • Type-Script • SQL • GraphQL

FRAMEWORKS

Spring Boot • Flask • FastAPI • Django • React/Next.js

LIBRARIES

JPA • Hibernate • JDBC • SQLAlchemy • OpenCV

TOOLS

Docker • Kubernetes • GCP • Vercel • PostgreSQL • MySQL • NeonDB • MongoDB • UNIX/Linux • JetBrains

CONCEPTS

Microservices • REST/gRPC APIs • CI/CD • Agile/Scrum • System Design • Object Oriented Programming

EDUCATION

TORONTO METROPOLITAN UNIVERSITY (FORMERLY RYERSON UNIVERSITY)

COMPUTER SCIENCE CO-OP - BSC (Hons)

Sept 2022 – Present | Toronto, ON

CGPA: 3.70 / 4.33 (3.6 / 4.0)

INVOLVEMENTS

Backend Lead @ PACS
Backend Engineer @ USSTM
Web Developer @ TMUCSA

COURSEWORK

UNDERGRADUATE

Database Systems I • Operating Systems I • Discrete Structures • Data Structures • Algorithms • Intro to Software Engineering • Computer Security I • Computer Networks I