LAITH KAMALEDDINE

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CONTACT

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SKILLS

Languages

Python	Ruby
C & C++	JavaScript
Java	HTML/CSS
Bash	Golang

Frameworks and Technologies

Rails	Vue.js
Node.js	React.js
Django	Flask
Spring	Docker
Kubernetes	MySQL
Pandas	Grpcio
Travis-CI	Gitlab-CI

COURSEWORK

Object Oriented Software Development

Data Structures and Algorithms

Database Systems

Computer Networks

Systems Programming and Concurrency

Real-Time Operating Systems

EDUCATION

University of Waterloo (UW)
BA.Sc Comp. Eng. (2022)
Dean's List – 3A term (2020)

OTHER INTERESTS

Volunteering: RCM, WS Aquatics
Music: Piano, Electric Guitar
Languages: English, French, Arabic

RELEVANT WORK EXPERIENCE (Full list on LinkedIn)

2021 — Software Developer Intern | Wish

- Architected and developed the i18n-sidecar, a plug-and-play container providing microservices with access to translation and globalization functionality.
  - Reduced onboarding time by 21+ story points for microservices requiring translation and/or globalization functionality.
  - Migrated to gRPC (HTTP/2) protocol from REST (HTTP) in order to meet latency constraints for performance-sensitive APIs. Latency checks on Prometheus indicated a 15x performance improvement on average for round-trip API requests.
- Enhanced Wish.com's shipping date estimates for non-USA countries through a localized shipping date calculator that accounts for a country's local holidays and weekends.

2020 — Chatbot Software Developer Intern | National Bank of Canada

- Led the development of DSP-CLI, an internal tool for the bank's chatbot cloud.
  - Provided features such as creation of chatbot instances, automated training/testing, and model configuration version control, improving efficiency of the data science team (halved time required for each chatbot update cycle).
- Improved visibility and performance of the chatbot Kubernetes cluster.
  - Added Datadog metrics and Jenkins pipeline optimizations to various microservices.
  - Kickstarted the migration of the gateway service to Elixir (doubled throughput).

2020 — Software Developer Intern | Opslevel

- Developed Opslevel ETL, a pipeline allowing clients to receive periodic data snapshots from Opslevel's database into their S3 buckets.
  - Streamed data in batches to S3, minimizing server-side memory usage by 95%.
  - Used Stop-Replication strategy to preserve database consistency.
- Leveraged Rails Action-Cable (Websockets) to add live updating to the frontend.
- Added server, DB, and application metrics in Datadog for improved backend visibility.
- Created a backend infrastructure in Rails for chaining async background jobs.

PROJECTS (Full list of projects, contests, and hackathons available on website)

AlteredSound | React · Flask · Librosa · Docker · Kubernetes · Travis-CI

- Built a webapp to perform modifications on uploaded audio files such as pitch shifting, time scaling, vocoding, etc. The resulting audio file is then made available for download.
- Leveraged docker-compose and AWS EKS for the backend microservice architecture.

Car Sales App – Backend + CLI | Python · MySQL · ArgParse · Pandas

- Created a BCNF and ACID-compliant database in MySQL based on raw historic car sales data from Kaggle, along with a CLI in Python providing full CRUD functionality for user accounts and car postings.
- Incorporated best practices for security, including one-way hashing, salting, escaping, and input sanitization.