# LAITH KAMALEDDINE

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## CONTACT

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## SKILLS

### Languages

| | |
|---|---|
| Python | Ruby |
| C & C++ | JavaScript |
| Java | HTML/CSS |
| Bash | Perl |

### Frameworks and Technologies

| | |
|---|---|
| Rails | Vue.js |
| Node.js | React.js |
| Django | Flask |
| Spring | Docker |
| Kubernetes | MySQL |
| Pandas | SciKit Learn |
| 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

**2020** **Chatbot Software Developer** | 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 by 50%+ (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 conversion of the gateway microservice from Java to Elixir, resulting in an estimated doubling of throughput per instance of that service.

**2020** **Software Developer** | 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, which minimized server-side memory/storage 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.

**2018** **Software Developer** | Genesys Telecom Labs

- Developed core features within Genesys' cloud platform, notably a microservice for on-the-fly voice translation designed for international VOIP call centers.
- Built full CI/CD deployment pipelines in Jenkins for various microservices.

**2019** **Software Developer** | NCR Canada
**2017** **RPA/AI Developer** | KPMG LLP

## PROJECTS

**Meza** | React Native · Node · Express · Flask · PostgreSQL

- Created a mobile app that scores a food product's healthiness based on a photo of its ingredients.
- Leveraged technologies such as Tesseract.js, Google API, and Watson API for OCR, automated ingredient research, and sentiment analysis respectively.

**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.