

# Omar Alashqar

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## RELEVANT EXPERIENCE

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### Software Engineering Intern | [Global Trading Systems \(GTS\)](#) New York, Sep - Dec 2021

- Building a scalable real-time log processing pipeline using **Spark** that parses over 2 billion events daily to enable analysts to track progress on trading orders across 20+ exchanges

### Software Engineering Intern | [IBM Canada](#) Toronto, Sep - Dec 2020

- Containerized existing applications into **Docker** format for ease of deployment onto cloud platforms
- Deployed internal projects onto **IBM Cloud** with automated **CI/CD**, allowing analysts to share and demo dashboards, alleviating manual effort for ETL processes, and improving the system's reliability
- Documented design decisions, trade-offs, and infrastructure details for project deployments, making them more maintainable and providing a concise description of the system's behavior
- Investigated the use of **event-driven** architectures utilizing **Kafka** and **gRPC** for future projects

### Data Engineering Intern | [Loblaw Digital](#) Toronto, Jan - Apr 2020

- Led R&D for a **Data Governance** integration to proactively validate data in **BigQuery**, reducing the need for data analysts to raise issues about the datasets, leading to less workflow disruptions
- Migrated pipeline scheduling to **Airflow**, improving the system's reliability and documentation
- Integrated **ACL** configuration for BigQuery into an internal ETL framework, improving data security
- Developed **ETL** data pipelines in **Python** in collaboration with analysts to deliver business insights

### Software Developer | [MAJiK Systems](#) Kitchener, May - Aug 2019

- Investigated using **Apache Beam** streaming data pipelines for a possible improvement in throughput
- Iterated on a new **full-stack** dashboard for clients' **IIOT** devices, opening a new revenue stream
- Developed a **GraphQL** data mocking utility, improving test coverage and design storyboarding

### Software Developer | [MAJiK Systems](#) Kitchener, Sep - Dec 2018

- Implemented a customer-facing task scheduling and tracking system using recursive state machines and data streams for factory operators, improving production quality and factory operations
- Integrated **GraphQL Subscriptions**, improving codebase readability and enabling simpler client code
- Built a program installer using the **WiX Toolset** for customers that cannot use Docker on Windows

## PROJECTS

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**Link Vis** | [ [Golang](#), [ReactJS](#) ] Multi-threaded web crawler with a graph visualization web-app

**ASCII Generator** | [ [NodeJS](#) ] Image to ASCII converter that supports files and webcam images

**Reddit Clone** | [ [NodeJS](#), [ReactJS](#) ] Full-stack reddit clone with user posts and voting system

## SKILLS

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**Languages** C, C++, Golang, Java, JavaScript, Scala, Python, Bash, Verilog, RISC-V ASM

**Technologies** SQL, MongoDB, BigQuery, Redis, Kafka, Spark, AWS, GCP, Docker, Jenkins, Git

## EDUCATION

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### BASc in Computer Engineering | [University of Waterloo](#) Sep 2017 - May 2022

- President's Scholarship for Academic Achievement, 3x Term Dean's Honours List
- **Relevant courses:** Distributed Computing, Concurrency, Security, Compilers, Networking, OS