

Mohammad Alamarneh

m.amarnah@gmail.com | (708) 860-4546

7415 Canterbury Pl, Downers Grove, IL 60516

convexhuman.com | linkedin.com/in/mohammedamarnah | github.com/mohammedamarnah

Experience

Angi

Software Engineer II

April 2022 - Present

- Engineered and managed microservices, integrating with marketing tools (Iterable, Responsys) and enabling personalized marketing.
- Designed and implemented a large-scale data migration pipeline (utilizing S3, SQS, Kafka, and more) that transferred 100M+ user records from legacy sources to an RDS Postgres database in < 4 hours.
- Led the design of a modular schema for storing user communication preferences, enabling integration of various communication types (marketing, transactional) within an extensible framework.
- Resolved data inconsistencies across multiple sources, analyzing replicated data coming from several legacy and newer sources and ensuring data integrity.

Edraak

Senior Software Engineer (Contractor)

January 2022 - July 2022

- Introduced optimizations on the database and application level that improved the performance by at least 30%.
- Refactored the Learning Management System by optimizing the number of database queries it makes and combining multiple existing queries with bulk database actions.
- Cleanup application models to a more modular, inheritable, and abstract definition that allows a cleaner, more readable code base.

Quicko

Senior Software Engineer (Contractor)

July 2021 - January 2022

Expedia Group

Software Development Engineer II

May 2021 - July 2021

Jawaker

Software Engineer

February 2018 - April 2021

- Designed and implemented web systems in a distributed service-oriented architecture, using a stack that included: Clojure, Ruby on Rails, PostgreSQL, Redis, Cassandra, and other technologies.
- Designed and engineered a scalable matchmaking service that handled matching millions of users in real time.
- Collaborated with the team on scaling the architecture to handle 5x the traffic during quarantine.
- Led the technical design and implementation of several games (i.e. MonopolyDeal, Chess, and other board and card games) and products (Game Events, Competitions).

Education

Princess Sumaya University for Technology
Bachelor of Science, Computer Science

Amman, Jordan
2014 - 2018

- Graduation Project: Implementation of an autonomous driving system that runs solely on cameras.
- Part of several programming competitions (ACM ACPC, IEEEExtreme) and coding marathons.

Technical Skills

Systems and web:

Ruby, Clojure, Java, Python, Scala, Javascript, Typescript, C/C++

Frameworks and tools:

Ruby on Rails, Spring Boot, ReactJS, Scala Play, Python Django, Unity3D

Databases, memory, and infrastructure:

PostgreSQL, Snowflake, Kafka, MongoDB, Redis, Memcached, Cassandra, ElasticSearch, Grafana, AWS.

Projects

RDS PostgreSQL data migration pipeline

A data migration pipeline that was built to move data from legacy tables (MariaDB, OracleDB) to an RDS Postgres instance. Transferred 100M+ records in < 4 hours. Utilized Snowflake, S3, SQS, Kafka, and Spring Boot.

Player Matchmaking

A matchmaking service built in Clojure that matches players in a game under certain criteria. Built with scale and distribution in mind with a queueing system using Redis.

Dynamic Redis Connection Pool

Implementation of a connection pool in ruby, with a dynamic number of connections using several threading methods. The pool initiates with 0 connections, can reach up to a maximum, and frequently disconnects idle connections.

Chess game engine

Implementation of a chess game engine written in Clojure using http-kit for a WebSocket connection that handled messaging and real-time game updates.

Leadership Skills

Codability

Instructor

- Introduced STEM to 9-12 grade students, by offering a project-based electronics and programming engineering course.

Al-Hasad Al-Tarbawi Schools

Robotics Programming Coach

- Led the team in winning the 2nd place First Lego League Champions Award in Jordan, Lebanon, and the Open World Championship in Tenerife, Spain.

- Introduced the team to various programming and control theory concepts, curated through a project-based C++ introductory programming course.