MOHAMMED AMARNAH

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EXPERIENCE

Expedia Group   Amman, Jordan

Software Development Engineer II   *May 2021 - July 2021*

- Part of the Media Solutions Ad Engineering team.
- Worked on the integration of a custom Ad server that handled Ad units and orders.
- Started different initiatives to share interesting knowledge outside the context of Expedia.

Jawaker   Amman, Jordan

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.
- Developed a strong understanding of both service-oriented and microservice architectures, along with how and when to use them.
- Collaborated with the team on scaling our architecture to handle 5x the traffic during quarantine.
- Led the technical design and implementation of several games and products, including a scalable matchmaking service.

Mixed Dimensions   Amman, Jordan

Research & Development Engineering Intern   *March 2017 - October 2017*

- Worked on 3D model rendering and computational geometry algorithms using C++ with OpenCV and QT.
- Developed a good acquaintance with the CUDA library for optimally rendering 3D models using GPUs.
- Worked with the robotics team on automating the process of painting 3D models using ROS and Gazebo.

EDUCATION

Princess Sumaya University for Technology   Amman, Jordan

Computer Science BSCS.   *2014 - 2018*

- Graduation Project: Implementation of an autonomous driving system that runs solely on cameras.
- Ranked top 10 in several programming competitions (ACM ACPC, IEEEXtreme) and coding marathons.

PROFESSIONAL SKILLS

Systems and Web	*Clojure, Ruby, C/C++, C#, Javascript*
Frameworks and Tools	*Ruby on Rails, Unity 3D, React Native*
Databases and Memory	*PostgreSQL, Redis, Memcached, Cassandra, Elastic Search*
Machine Learning and Computer Vision	*OpenCV, Tensorflow*

PROJECTS

Chess game engine [Clojure]   https://github.com/mohammedamarnah/clj-chess

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

Dynamic Redis Connection Pool [Ruby]   https://github.com/mohammedamarnah/redis-wrapper

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 upto a maximum and frequently disconnects idle connections.

Brain Tumor Diagnosis using EEG [Research]

A study on whether it is possible to diagnose brain tumors based solely on the non invasive electrical activity of the brain. Implemented a BCI without the use of any micro controllers. The project also included an implementation of a brain wave monitoring program that filtered the signals and digitalized them using FFT.

PID Controller Simulator [Processing]

A project that was implemented to enhance the educational experience for the Robotics team. Was used to simulate how the robot will act based on specific constants.

LEADERSHIP SKILLS

Codability   **Amman, Jordan**

Instructor   *July 2017 - November 2017*

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

Al-Hasad Al-Tarbawi Schools   **Amman, Jordan**

Robotics Programming Instructor   *September 2015 - July 2016*

- Led the team through 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.