Omar Alashqar

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EXPERIENCE

Software Developer | MAJiK Systems   Kitchener May - Aug 2019
· Implemented stateful streaming pipelines using Apache Beam to process time-series data for training ML models
· Co-Lead development of an IIOT dashboard tool and improved industrial protocol drivers for PLC communication
· Developed and migrated custom nodes compatible with Node-RED for IIOT connectivity, PLC mining, and more
· Built a GraphQL data mocking utility to improve test coverage, storyboarding, and development speed

Software Developer | MAJiK Systems   Kitchener Sep - Dec 2018
· Implemented a task scheduling and tracking system for factory operators utilizing recursive state machines
· Extended a GraphQL API to support real-time data updates, reducing network latency and code-base complexity
· Built an alternative deployment tool for Windows and tested cloud database providers

Web Developer | Rich Media   Toronto Jan - April 2018
· Developed front-end components for custom client-side routing and data visualizations using ReactJS
· Pioneered research and development for a company Google Assistant Agent to showcase products and services

PROJECTS

CounselConnect | Platform for matching with lawyers and paralegals
· Developed the back-end service and reduced app complexity by more than 40% through new technologies

Web Crawler | Multi-threaded tool to crawl URLs starting from a seed URL to find valid PNG files (C)

ASCIIfy ⚲ | An image to ASCII converter that supports webcam images and videos (NodeJS)

No Chill ⚲ | Crossy road game clone using endless random generation (Java)

WAVE file player | Embedded system for playing songs from an SD card (C)

Lazorboi ⚲ | Laser display embedded system for the Onion Omega2 board (C)

ACTIVITIES

Software & Electrical sub-teams member | UW Robotics Team   Waterloo Sep - Dec 2018
· Implemented a frame-by-frame visualizer to test and debug inverse kinematics controls for a robotic arm

Co-Founder & Tutor | High school Code Club   Mississauga Oct 2016 - Jun 2017
· Introduced students to coding in Python and Java through challenges and participated in contests as a team

Lead Programmer ⚲ | FIRST Robotics Team 6378   Mississauga Oct 2016 - Jan 2017
· Programmed robot for driver control and autonomous routines with error correction feedback in Java

SKILLS

Languages	C/C++, JavaScript, Java, Python, Golang, VHDL, RISC-V ASM
Stack and tools	NodeJS, GraphQL, Apache Beam, MongoDB, AWS, ReactJS, Jenkins, Linux, Git, DipTrace
Concepts	Stream Data Processing, Data Structures, Multi-threading, Embedded Systems

EDUCATION

Candidate for BASc in Honours Computer Engineering | University of Waterloo   2017 - 2022
Coursework
· Algorithm analysis and design with efficient data structures such as graphs and trees
· Multi-threading, IPC, networking, and low-level systems programming with UNIX