

# SOLAIMAN JAWAD

msjawad.github.io — msjawad@uwaterloo.ca — in/solaiman-jawad — github.com/msjawad

## SKILLS

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- Languages: C, C++, Python, JavaScript, Go, Scheme, SQL
- Tools & Frameworks: Node.js, React.js, Terraform, Sagemaker, Django, Git, Bash

## WORK EXPERIENCE

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### Intelrad Medical Systems

Sept – Dec '19

Software Developer (Machine Learning/Infrastructure)

Toronto, ON

*Worked on image recognition initiatives for Intelrad's image viewer suite and cloud deployment platform*

- Automated the chest X-ray hanging protocol by developing neural networks to classify viewing angles
- Improved data collection throughput by 45% by utilizing better parsing algorithms in analysis tools
- Implemented and configured a variation of YoloV3 for object detection of vertebrae in the spinal column
- Built scalable, fault-tolerant training and inference pipelines for multiple projects using AWS Terraform

### The Co-operators

Jan – Apr '19

Innovation Developer (Web Development)

Kitchener, ON

*Led the development of chatbots, asynchronous document parsers and web APIs*

- Built a quote generating chatbot that enacts dialogue and concurrently parses data from documents
- Integrated search by relevance functionality in the documentation and question tree of a hiring program
- Developed a REST API to help implement bug trackers for several projects and connected them to Jira

### BRAC University

Jun – Jul '16

Data Analyst Intern

Dhaka, BD

- Updated decision tree classifiers for a prediction model of academic success of currently enrolled students
- Evaluated results of analysis based on the response of quizzes, questionnaires, and student profiles

## PROJECTS

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### pathfinder

[git.io/JvUHk](https://git.io/JvUHk)

- Built a program that generates mazes and displays the performance of different pathfinding algorithms
- Uses a randomised version of Prim's algorithm to generate mazes with minimal dead ends

### bigRSA

[git.io/vNO7D](https://git.io/vNO7D)

- Designed a program that uses the RSA cryptosystem to generate keys to encrypt and decrypt messages
- Optimised the program to quickly generate and use 600 bit numbers for encryption

### Biquadris

[git.io/fjoeS](https://git.io/fjoeS)

- Developed a turn-based Tetris game, complete with difficulty levels, greedy hinting, and a Xlib display
- Built under the object-oriented paradigm, supporting multiple design patterns and rotation algorithms

### restTorrent

[git.io/fjsVG](https://git.io/fjsVG)

- Constructed a REST API that uses bencode URLs to track peers based on seed ratio and download files

Other notable projects: **axys**, **fzySearch**, **ANeuralNet**, **go-workerpool** and more on **Github**

## EDUCATION

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### University of Waterloo

Sept '17 – Sept '22 (*expected*)

Candidate for Bachelors of Mathematics, Honours (Computational Mathematics)