

# SOLAIMAN JAWAD

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

## SKILLS

---

- Skilled in Javascript, C++, C, Python, Scheme, R, SQL, Django, Bash, Git, Keras and Tensorflow
- Interested in backend development, web development, deep learning, infrastructure, systems design

## WORK EXPERIENCE

---

### The Co-Operators

Jan – Apr '19

*Innovation Developer (Web Development)*

*Waterloo, ON*

- Built a quote generating chatbot using NodeJS that enacts smart dialogue and collects data by parsing documents, reducing quote generation time by 81% by using efficient, concurrent parsing algorithms
- Worked cross-team on an assessment tool used to identify businesses and generate risk appetite scores
- Authored search by relevance functionality in a hiring program, allowing it to deliver articles and image searches to users, and enabling quick lookup of queries or forms in the program's question tree
- Constructed a rest API to help implement bug trackers for several projects and connect them to Jira

### BRAC University

Jun – Jul '16

*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

---

### Axys

*git.io/vpGt1*

- Developed a web platform to help developers connect with designers and collaborate on projects
- Won "Best Use of Amazon Web Services" award at Starterhacks 2018

### restTorrent

*git.io/fjsVG*

- Built a rest API that uses bencode URLs to track peers according to seed ratio and download files
- Used UDP protocol instead of traditional TCP to enable faster speeds with stable connections

### bigRSA

*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

### ANN-Bank

*git.io/fAzBD*

- Constructed a neural network that predicts the likelihood of retention of customers in a particular bank
- Used concepts like backpropagation and reinforcement learning to achieve a 86% testing set accuracy

*Other notable projects: fzySpellcheck, Biquadris, CNNandDogs and more on Github*

## EDUCATION

---

### University of Waterloo

Sept '17 – Sept '22 (*expected*)

*Candidate for Bachelors of Mathematics, Honours*

- Joint Major in Computational Mathematics and Combinatorics and Optimization
- Relevant Courses: Object Oriented Programming, Functional Programming, Algorithm Design and Data Abstraction, Data Types and Structures, Logic and Computation
- Recipient of the President's Scholarship (95<sup>th</sup> percentile admission average)