

# KOUTHAR WALED

Computer Science student with a love for ideation, iteration, and innovation.

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## WORK EXPERIENCE

### KUKA Robotics

#### Mobile Developer & Product Manager

May 2019 – August 2019

- Developed and tested a **Human-Machine interface** in **Swift** for iOS with a dynamic, user friendly UI to easily and wirelessly command mobile robot showcased to **5000+** customers.
- Integrated commands from remote Apache Tomcat Server from a **REST** based robot application granting wireless communication between the iOS application and robot.
- Designed specifications and developed application for automated LEGO assembly and dis-assembly robot in **Java** showcasing compliance and **accuracy within 0.5mm**.
- Designed, developed, iterated a customer focused product end-to-end product development protocol for **nationally** based products.

### FIRST Robotics Canada

#### Project Coordinator Intern

November 2017 – February 2019

- Developed and launched a series of open-source Robotics **Java** Tutorials explaining robot mechanisms and sensor applications, available to **150+** FIRST Robotics teams with **1500+** views since January 1<sup>st</sup>, 2019.
- Spoke as a Webinar panelist about **command-based/object-oriented robot programming**, assisting **100** FIRST Robotics participants and their teams.

## PROJECTS

### FIRST Robotics Competition Projects

September 2015 – Present

- Utilized motor controllers, pneumatics, encoders, analog, digital ultrasonic, colour and **LIDAR** sensors **CAN bus systems**, and **PID loops** using the FIRST Robotics Competition, and Cross the Road Electronics APIs on a team in **Java**.
- Led mentorship for programming on a Rookie team in 2017/2018 which **won Ontario Provincial Championships** and was ranked **highest Rookie seed of 400+** teams.

## LEADERSHIP

### Hack the North

#### Sponsorship Coordinator

February 2019 – Present

- Iterated upon and launched an improved sponsorship package, analysing and extrapolating sponsor needs and wants.
- Raised **\$XXXXk+** to accomodate for **50% growth** of the event.
- Created forecast for leads and deals to predict progress to raise money for 1500+ attendees.
- Led initiative to organize for involvement of **65+** sponsors in diversity and inclusion activities.

### LEGO Robotics without Borders

#### Founder, Lead

March 2017 – September 2018

- Led sponsorship, raising **\$4,000** for materials and camps.
- Distributed LEGO Robotics kits and laptops to **63** underprivileged and under-served youth in **Morocco, Peru, and Canada**.
- Implemented infrastructure to allow program to grow to **80+** students.

## TECHNICAL SKILLS

### Languages

- Swift, Java, C++, C, Scheme (Racket), Python

### Tools, Frameworks, Data

- REST, JSON, PostgreSQL, Git, JIRA, JavaFX, Cross the Road Electronics, WPiLib, Reddit Praw API, RoboticsAPI

### Computer Tools and Skills

- MS Power BI, Linux, MacOS, Windows

## AWARDS

### LORAN Semi-Finalist

November 2017

- Rewarded to individuals with **outstanding community involvement and impact**.
- **Top 7% of over 5,000** applicants around Canada.

### Breakthrough Junior Challenge

October 2017

- Created video explaining the **neuroscience of learning**.
- **Top 5% of over 3,000** applicants around the world.

## LANGUAGES

- **High Proficiency:** English, French, Arabic
- **Elementary Proficiency:** Spanish, Japanese

## EDUCATION

Candidate for Bachelor of Computer Science,

### University of Waterloo

September 2018 – April 2023

- President's Honour of Distinction
- Residence Life Don

## INTERESTS & ACTIVITIES

Volunteering, Tutoring, Swimming, Drawing, Painting, Singing