

SHEIKH ABRAR TAHMID

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SKILLS

Languages Tools

Java ▪ JavaScript ▪ HTML ▪ CSS ▪ C ▪ C++ ▪ Python
Eclipse ▪ Android SDK ▪ JavaFX ▪ Swing ▪ Linux ▪ Node.js ▪ Electron ▪ Git ▪ ROS ▪ Bootstrap

EXPERIENCE

Programming Lead and Team Captain

Sep 2014 - June 2018

FIRST Robotics Competition Team 5036, Toronto, ON

- Effectively led 20-person team to create 120-pound, industrial-sized robot each year (video of 2018 robot: <http://bit.ly/2Erz5qW>)
- Programmed robots using Java and the WPILib API, implementing advanced object-oriented programming and robotics control concepts
- Oversaw all aspects of team, including design, software and fundraising, during last 2 years with team

Software Developer and Robot Designer

July 2017 - Aug 2017

SMARTWheel Canada, Burlington, ON

- Designed and constructed a human-sized promotional robot mascot for a retailer to be presented at TAVES Consumer Electronics Show
- Programmed Java app deployed on Windows tablet to act as robot's face using Swing, FreeTTS and socket libraries
- Programmed Android app to remotely send commands to robot over Bluetooth, making it talk and change its expression

Robotics Instructor

July 2018 - Aug 2018

Bot Camp, Toronto, ON

- Mentored students on how to design, build and program competitive robots using the VEX IQ platform to complete an engineering challenge
- Introduced programming concepts including loops and conditional statements as well as various real-world robotics mechanisms

PROJECTS

Laptop Guard *Java, JavaFX, JavaMail, C, WinAPI*

<http://bit.ly/2EFnLcr>

A Java desktop security app that sounds an alarm when a user's laptop is unplugged and sends a notification to the user's email

Robotics Competition Scouting App *Java, Swing*

<http://bit.ly/2T9C15P>

An internal tool used by FIRST Robotics Competition Team 5036 to make recording and analyzing performances of robots at competitions easier

Word Matching Game *Java, Android SDK*

<http://bit.ly/2NEoD3U>

A brain-training game with over 250 downloads where players must match word pairs hidden in a randomly-generated array

Boxie Vs. the World *Java, jMonkeyEngine*

<http://bit.ly/2VvQQfQ>

A 3D game for the PC where the user controls the character, Boxie, to collect coins and jump from platform to platform

Pong Desktop App *JavaScript, HTML, CSS, Node.js, Electron*

<http://bit.ly/2HaTCDk>

An implementation of Pong using Node.js and Electron where the player competes against a computer-controlled opponent

AWARDS AND ACHIEVEMENTS

Innovation in Control Award *March 2018*

FIRST Robotics Canada

Earned robotics team award by programming software for robot to perform autonomous tasks using PID loops and multiple sensors

Qualified for FIRST Robotics World Championships *April 2017, April 2018*

FIRST Robotics Canada

Captained robotics team to secure 2 consecutive World Championship berths

Principal's Award for Student Leadership *June 2018*

Sir Wilfrid Laurier C.I

Recognized for demonstrating strong leadership ability on FIRST Robotics Competition Team 5036

EDUCATION

Bachelor of Computer Science

Sep 2018 - present

University of Waterloo, Waterloo, ON