# SHEIKH ABRAR TAHMID

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## **SKILLS**

Languages Java, JavaScript, HTML, CSS, C/C++, Python Tools Android SDK, JavaFX, Swing, Node.js, Electron, Git

## **EXPERIENCE**

#### **Programmer and Team Captain**

FIRST Robotics Competition Team 5036, Toronto, ON

Sep 2014 - June 2018

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

#### **Robotics Instructor**

Bot Camp, Toronto, ON

June 2018 - July 2018

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

#### Software Developer and Robot Designer

July 2017 - Aug 2017

SMARTWheel Canada, Burlington, ON

- Designed and constructed a human-sized robot mascot for a hoverboard retailer
- Programmed Java app using Swing library and socket programming deployed on a Windows tablet to act as the robot's face
- Programmed an Android app to remotely control the face over Bluetooth, making the robot talk and change its expression

### **PROJECTS**

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

http://bit.ly/2EFnLcr

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

#### Quantitative Data Analysis App Java, Swing

http://bit.ly/2T9C15P

A Java desktop app used to make recording and analyzing robot performances 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 an array

#### **3D Platformer Game** *Java*, *jMonkeyEngine*

http://bit.ly/2VvQQfQ

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

#### Pong Desktop App JavaScript, Node.js, Electron

http://bit.ly/2HaTCDk

An implementation of Pong using Node.js and Electron where the player competes against an AI 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

#### Qualifier 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 school's robotics team