

SHEIKH ABRAR TAHMID

Candidate for Bachelor of Computer Science - University of Waterloo, Class of 2023

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SKILLS

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

EXPERIENCE

Programmer and Team Captain

Sep 2014 - June 2018

FIRST Robotics Competition Team 5036, Toronto, ON

- 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

July 2018 - Aug 2018

Bot Camp, Toronto, ON

- 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 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

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, HTML, CSS, 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

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 school's robotics team