# **Sheikh Tahmid**

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## **Skills and Abilities**

- Programming languages: Java, JavaScript, HTML, CSS, C, C++, Python, Ruby, Racket
- Tools and Frameworks: Android SDK, NodeJS, Electron, Git, OpenCV, JavaFX, Swing, ROS
- Computer-Aided Design using Autodesk Inventor
- Manufacturing skills: using a miter saw, bandsaw, drill press and various other tools

#### **Work Experience**

Robotics Instructor at Bot Camp

July 2018

- Taught students aged 10-14 how to design, build and program robots using the VEX IQ platform Created "Wheely" Promotional Robot for SmartWheel Canada July-August 2017
  - Designed and constructed a robot mascot with various materials for a hoverboard retailer
  - Programmed Java app deployed on a Windows tablet to act as the robot's "face" and programmed Android app to remotely control robot "face", making it "talk" and vary its expression
  - <u>TAVES Consumer Electronics Show preview</u> mentioning the project briefly

Robotics Instructor at Toronto District School Board

July 2017

Taught summer school students in grades 1 to 5 how to program robots using tablets

#### **Featured Projects**

FIRST Robotics Competition Robots for Team 5036: The RoboDevils

2015-2018

- Team progressed from ranking 44<sup>th</sup> out of 48<sup>th</sup> at their local competition before my involvement to making 2 back-to-back World Championship appearances in my final two years
- Official captain for last 2 seasons; sole programmer and lead CAD designer for last 3 seasons
- Designed robots with Autodesk Inventor and programmed them in Java
- Fundraised over \$6000 over four years to support the team
- Earned the Innovation in Control Award in 2018 for software that contained implementations of PID loops and used a variety of sensors, including encoders and an ultrasonic sensor
- 2018 season recap video, 2018 source code, 2017 source code and 2016 source code

Pong Game with Electron

2018

- Self-taught NodeJS and Electron by implementing a game of Pong
- User controls their paddle against a computer-controlled opponent
- Demo video and source code

Boxie Vs the World

2016

- Created a 3D game with Java by using the jMonkeyEngine library and IDE
- User controls a character to collect coins and "cheese" to earn the ability to jump
- Created character and game models with Autodesk Inventor and Blender
- Demo video and source code

# **Volunteer Experience**

Alumni Mentor for FIRST Robotics Competition Team 5036: The RoboDevils

2018-present

Gives advice and teaches current students in the areas of programing, design and strategy

#### **Education**

University of Waterloo

2018-present

• Computer Science Hon. Student with Co-op

Sir Wilfrid Laurier C.I.

2014-2018

OSSD, International Baccalaureate Diploma and French Certificate of Completion

## **Awards and Achievements**

• President's Scholarship of Distinction, University of Waterloo

2018

• Principal's Award for Student Leadership, Sir Wilfrid Laurier C.I.

2018