Sheikh Tahmid

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Skills

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

Experience

Member and Captain of FIRST Robotics Competition Team 5036: The RoboDevils   2014 - 2018

- Worked with high school team to create an industrial-sized robot each year, designed to play a unique real-time strategy-based game for the FIRST Robotics Competition
- Led team to progress from ranking 44/48 at a local competition in 2014 to making 2 back-to-back World Championship appearances in 2017 and 2018
- 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
- Earned the team the Innovation in Control Award in 2018 for software that contained implementations of PID loops and used various sensors such as encoders and a potentiometer

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 a Java app deployed on a Windows tablet to act as the robot's "face"
- Programmed Android app to discreetly control "face", making robot "talk" and vary its expression

Robotics Instructor at Toronto District School Board   July 2017

- Taught summer school students in grades 1-5 how to code robots with block-based programming

Projects

Laptop Guard (Java, C, JavaFX, JavaMail, WinAPI)   January 2019

- Created a desktop app to protect against potential laptop thefts
- App locks out the laptop when enabled, sounding an alarm and sending an email notification to the user if the machine is unplugged; alarm stops only when user logs back in and disables app
- Created GUI using JavaFX and implemented the email notification feature using JavaMail
- Made Windows system function calls using C and the WinAPI

Quantitative Data Analysis App - "Scouting App" (Java, Swing)   December 2017

- Created desktop app to scout and analyze robots at robotics competitions
- User records a robots' stats after each match, allowing app to calculate averages and standard deviations for a robot's performance over multiple matches, and then rank each robot
- Created GUI using Swing
- Inputting data with app was faster than previous method of using spreadsheets

Word Matching Game (Java, Android SDK)   May 2016

- Created an Android brain-training app where user matches pairs of words hidden inside a grid
- Word pairs and grid placements are selected at random and difficulty increases at each level
- Over 245 downloads on third-party app store

Pong Desktop App (JavaScript, HTML, CSS, Node.js, Electron)   August 2018

- User plays a game of Pong by controlling their paddle against a computer-controlled opponent
- Implemented physics and smart behaviour of computer-controlled opponent

Education

University of Waterloo   2018 – present

- Bachelor of Computer Science, Class of 2023