Sheikh Tahmid

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Skills

- Programming Languages: Java, JavaScript, HTML, CSS, C, Python
- Tools and Frameworks: Android SDK, JavaFX, Swing, NodeJS, Electron, Git
- Computer-Aided Design using Autodesk Inventor

Select Projects

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

- 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

Quantitative Data Analysis App - "Scouting App"   *Java, Swing*

- Created a desktop app with a GUI 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

Personal Website   *JavaScript, HTML, CSS*

- Created a website from scratch, using JavaScript to implement dynamic and interactive elements

Boxie Vs the World   *Java, jMonkeyEngine*

- Created a 3D game where user controls a robot character to collect various game objects
- Created the character and game models with Autodesk Inventor and Blender

Word Matching Game   *Java, Android SDK*

- Created an Android brain-training app where user matches randomly generated pairs of words hidden in a randomly generated grid, at increasing difficulty levels

Pong Desktop App   *JavaScript, HTML, CSS, NodeJS, Electron*

- User plays a game of Pong by controlling their paddle against a computer-controlled opponent

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

Education

University of Waterloo   *2018 – present*

- Bachelor of Computer Science, Class of 2023