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# WALID KHAN

## SUMMARY

Highly motivated and creative Computer Science Student. Skilled in Game Development, Image Recognition, and App Development, etc. Further skills include adeptness in electrical and mechanical hardware components. Extremely quick learner and efficient problem solver, capable of meeting multiple deadlines and work efficiently under strict time constraints.

## EDUCATION

### Stony Brook University

**Major: Computer Science** (Relevant Completed Courses: Data Structures, Multivariable Calculus, Linear Algebra)
**Expected Graduation:** June 2023
GPA: 3.86

## WORK EXPERIENCE

### STI: Saif Tutorial Institute

❖ *Full-Time summer Instructor for SAT I, and II*
- *Taught Full time SAT and SAT II, gaining vast knowledge in efficient Mathematical Models and algorithms. Helped build fundamental logic by teaching under pressure.*
  **July 2015-June 2018**

## PROJECTS

❖ *OpenCV to Robot Arm*
❖ [https://devpost.com/walid101?ref_content=user-portfolio&ref_feature=portfolio&ref_medium=global-nav](https://devpost.com/walid101?ref_content=user-portfolio&ref_feature=portfolio&ref_medium=global-nav)
❖ **Built a custom hand detection algorithm with the OpenCV library** using a cloud source library (MQTT) to communicate with the Arduino.
  Java, Python

❖ *Android and Desktop Game*
❖ [https://github.com/walid101/InfinityGame](https://github.com/walid101/InfinityGame)
  **Built an android game mimicking a traditional Indie game using the LibGDX game engine and Android Studio** as a summer project, fully made with appropriate backends.
  Java, Android Studio

❖ *Hackathon Game (HackNY) : Contributor*
❖ [https://github.com/FrezCold/District1128](https://github.com/FrezCold/District1128)
❖ Built with the LibGDX engine for the HackNY Hackathon aimed at solving the huge trash issue in the United States.
  Java, Android Studio

❖ *MakeHarvard Hackathon (2020): Lead Programmer*
❖ [https://devpost.com/software/r-cubed-6twh1n](https://devpost.com/software/r-cubed-6twh1n)
❖ [https://github.com/walid101/TensorFlow-Arduino-App](https://github.com/walid101/TensorFlow-Arduino-App)
❖ Built a comprehensive image recognition and Bluetooth transmission app for the Arduino using Android Studio. **The program is efficient enough to run on just the processing power of a phone**.
  Java, C#, Arduino, TensorFlow

## ACHIEVEMENTS

### Programming Captain for team 12178 (FTC)

❖ *Main Programmer for High School Robotics Team*
- ***Used applied physics to create the first-ever Holonomic Drive on a four-wheel vehicle. Won 6th*** in the state during the 2018-2019 season at Townsend Harris Highschool.
- ***Recipient of the Innovation Award Twice in both Townsend Harris and Francis Lewis competitions***
  **Sept 2018 - March 2019**

### Lead Programmer in HackNY Hackathon (2019)

❖ *Main Programmer for High School Hackathon Team*
- *Created a game to change the mindset of the American people. The task at hand was to solve the major garbage issue, determining that if a game can reach out to multiple people, the efficiency of a 100 people motivated to shift their paradigms slightly is far better than building one robot.* ***(Won Most Advanced Project Award)***
  **Dec 2018 - July 2019**

### Won 4th place in Circuits, Division C of Science Olympiad (2019)

❖ *Team A member in division C of Science Olympiad*
  *Won circuits division in States Competition*
  *4th Place in States Competition (2019)*
  *Won 11th Place in Thermodynamics (2018)*
  **Dec 2018 - Feb 2019**

## TECHNICAL SKILL SET

| Front End Technologies | Machine Learning |
|---|---|
| ❖ *HTML (Competent)* | *TensorFlow(Competent)* |
| ❖ *CSS (Competent)* | |
| ❖ *JavaScript (Competent)* | |

| Back End Technologies | Image Recognition |
|---|---|
| ❖ *Java (Advanced)* | *OpenCV (Advanced)* |
| ❖ *Python (Advanced)* | *TensorFlow (Advanced)* |

| Hardware Technologies Technologies | DataBase |
|---|---|
| ❖ *Arduino (Advanced)* | *Google Firebase(Adept)* |
| ❖ *Raspberry Pi (Competent)* | |

| App Development | Game Development |
|---|---|
| ❖ *Android Studio (Advanced)* | *LibGDX Engine(Advanced)* |
| | *Unity(Adept)* |