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WALID KHAN

## EDUCATION

### Stony Brook University

**Major: Computer Science** : Relevant Completed Courses: Data Structures, Multivariable Calculus, Linear Algebra, Discrete Maths , Programming Paradigms and Abstractions, Object-Oriented, Computer Architecture, Computational Theory

**Expected Graduation: June 2023**

GPA: 3.61

## WORK EXPERIENCE

### STI: Saif Tutorial Institute

- ❖ **Stony Brook University Computer Science T.A**
  - Taught Students in CSE 101 paradigms in Data Structures, Libraries, Coding Style, Critical thinking, and Algorithms. Taught weekly labs, and held office hours.  
**July 2015-June 2018**
- ❖ **Full-Time summer Instructor for SAT I, II & A.P CS**
  - 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

- ❖ **My Website: [walid-z-khan.me](http://walid-z-khan.me)**
- ❖ <https://github.com/walid101/walid-khan.me>
- ❖ **Built the website from scratch with the MERN Stack. User submissions saved to an Atlas cluster. This is my personal website with project examples and demos.**  
MERN, JavaScript, HTML, CSS, Visual Studio
- ❖ **OpenCV to Robot Arm**
- ❖ **Built a custom hand detection algorithm with the OpenCV library using a cloud source library (MQTT) to communicate with the Arduino.**  
Java, Python
- ❖ **Dynamic Website - Capital One - Summiteer**
- ❖ [https://github.com/walid101/ESTNews\\_Main](https://github.com/walid101/ESTNews_Main)  
Built with Django and Pycharm this project was a challenge issued by Capital One for their prestigious software engineering summit. We were tasked with making a news website that continuously updates the most recent headlines with the NewsAPI.  
Django, Pycharm, Bootstrap, Python, NewsAPI
- ❖ **MakeHarvard Hackathon (2020): Lead Programmer**
- ❖ <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**

### Capital One Summiteer - SES 2021

- ❖ **Attended Capital One's Renown CS Summit**
  - Accepted into Capital One's selective program, tasked with creating a webApp implementing the NewsAPI with full Mongo Database support. Among 686 applicants only 63 were granted attendance in the summit
  - WebApp Link: [www.est-news.com](http://www.est-news.com)
  - GitHub Repo: [https://github.com/walid101/ESTNews\\_Main](https://github.com/walid101/ESTNews_Main)  
**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

- ❖ **HTML (Competent)**
- ❖ **CSS (Competent)**
- ❖ **JavaScript (Advanced)**

### Back End Technologies

- ❖ **Java (Advanced)**
- ❖ **Python (Advanced)**
- ❖ **C++ (Advanced)**
- ❖ **Haskell (Advanced)**

### Hardware Technologies

- ❖ **Arduino (Advanced)**
- ❖ **Raspberry Pi (Competent)**

### App Development

- ❖ **Android Studio (Advanced)**
- ❖ **Visual Studio Code(Advanced)**

### Machine Learning

- ❖ **TensorFlow(Competent)**
- ❖ **PaaS/IaaS Deployment**
- ❖ **Reinforcement Learn. (Skilled)**

### Image Recognition

- ❖ **OpenCV (Advanced)**
- ❖ **TensorFlow (Advanced)**

### DataBase Technologies

- ❖ **Google Firebase (Adept)**
- ❖ **Atlas/MongoDB (Advanced)**
- ❖ **Django (Web Dev + Backend)**

### Game Development

- ❖ **LibGDX Engine(Advanced)**
- ❖ **Unity(Adept)**