Yash Bolisetty

Personal Information

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Education

Thomas Jefferson High School for Science and Technology, Freshmen, Class of 2018

Projects

Harvard Startup Internship

Recently, I was selected for an internship at a Harvard Startup known as Nom Nom Foods. Nom Nom Foods is a startup which is addressing the huge problem in this country with the food that schoolchildren are provided with. The startup's mission is to deliver healthy and nutritious lunches to school children by connecting students, parents, and schools with restaurants who are willing to deliver to schools. My role was to maintain the backend of the website, which included registering customers, taking food orders from companies, accepting credit card payments, sending orders to restaurants, and sending receipts to customers. I was able to accomplish this by implementing the backend with multiple APIs such as Facebook's Parse and PayPal's REST API. The requests and responses are formatted as JSONS for this API. This experience allowed me to gain lots of knowledge in what goes on behind a website along with lots of skills implementing various APIs.

eCybermission

I started off early middle school with a competition known as eCybermission which is a competition for students to do research and come up with a solution to a problem in the society. I formed a team and together, we built a robot which would spray salt on icy roads. This project helped me learn and even though I didn't win, I tried again next year, where I implemented my former project. This time however, I created a robot which would collect toxic wastes and litter on sidewalks and dispense these wastes at a designated area. For this project, I received an honorary mention. As a senior, in the final year of middle school, I participated one last time, this time creating an all-in-one car system which included 3 major components that we designed: 1.A breathalyzer which would be connected to our main system and the driver would need to blow on it before starting the car. 2. We created an app which would report their level of alcohol in their body and also determine whether or not the driver could drive.3. We created an anti-texting component which would contain the driver's phone while he/she drives and if he/she tries to remove it, the time and date that they attempted will be logged onto an SD card and there will be an alarm that sounds. This anti-texting component uses the same SD card to store when the driver attempted to start the car even though they were drunk. If police or the driver's guardian wants to check the history of the driver, they simply look in the SD card. For this research project, I were awarded 2nd in the state of Virginia. I have also done eCybermission this year, where I have built the First Responder: A device made of two components. The First Responder device is an attachable device which

is attached to an everyday person. As soon as one of the 4 vital signs of this person's body falter, this First Responder will send a signal to the paramedics and some other data to our second component of this First Responder Project: The drone. The First Responder Device will use dijkstra's algorithm to calculate the shortest path between any two nodes and it will send the drone the longitude and latitude of the person in medical distress. The drone will then arrive at the scene before the paramedics (the average time for ambulances/paramedics to arrive at a medical scene is over 20 minutes) and it is equipped with a TCP Stream which will create a connection between a medical authority and a bystander of the patient/the patient themselves. The drone will also be equipped with a few medical aids such as an inhaler and painkillers which can be given to the patient. For this project, I won first place at the state level. The First Responder can be used simultaneously with an iOS app that I created, which will do the same calculations and functions.

MIT Research Project

I have also conducted individual research in the field of biotechnology and I have done research on a way to incorporate nano-robots into the solution for stopping death by heart attack. I have contacted these professors who have offered me their knowledge and technology, which I wish to use to my advantage.

Science, Math, and English

Google Science Fair

During the same year, I also applied for Google Science Fair, in which I submitted a similar project. However, this project contained a Microsoft Kinect which would detect whether or not the driver is distracted while the car is moving. It would log in the time into an SD card as well.

Math and English

Other than technology competitions, I have also competed in math competitions such as the AMC 8, in which I was ranked in top 8% during 2014 and 2015. I have also competed in Continental Math League, in which I received third place. I have also won 2nd at the NSF Essay Competition.

Programming Skills

I have skills in various programming languages such as Java, Swift, SQL, HTML, CSS, JavaScript, and Python. I am also an Oracle Certified SQL Developer, which I earned last summer. I have learned on how to implement these codes into projects which I wish to reveal to the world and I wish to use these skills to make the world a better place and I wish to do this with Facebook.

Programming Competitions

During the year of 2014, however, was when my true programming potential was revealed. I mastered Java over the summer and within a month of this, I attended my first ever Hackathon. I went to HackNC nervous, but once the programming started, there was no stopping. I won the Most Awesome Hack

from Major League Hacking for creating the LectureBuddy app, in which OpenCV was used to detect diagrams drawn by a professor and sort out the bad drawing. My app also allowed you to store all of your lectures and photos taken at your school in one place, allowing easy access. Each lecture would have the option of being converted to a text file using the NSSpeechRecognition API. At PennApps, I created a SmartFridge, which was linked with a website that I created. I linked this website to Parse API for storing the usernames, passwords, and the contents of the respective users fridge. The smart fridge would sort out all of its contents based on color using OpenCV libraries and a Raspberry Pi. The data would be sent to a HTTP Server and then it would be sent to the user's respective account. The user would be able to see what is in their fridge and what they need to add at the Grocery Store. There was also a health portion to my website which calculated the approximate calories for every food item. Another option to my website was the shopping list, which would store the food items in the user's shopping list in parse under a separate list of objects, not confusing them with the food already in your fridge. I also compressed this website into a mobile friendly app, allowing the user to see their fridge anywhere they go.

Volunteering

During my India trips, I have visited numerous orphanages, which children have made a new life after either being abandoned or left without anybody. I have donated a plethora of toys and lots of food to help bring joy. Every year, I also donate furniture, toys, and other household items to local charities. I started volunteering when I was 13, volunteering for over 20 hours at a local library. The satisfaction I received allowed me to do more, such as the Malaria in America Event where awareness for this deadly disease was spread. I have also volunteered for over a hundred hours at a local temple known as the Vedic Temple of Virginia.