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|  |  | Christopher Francis Diaz  Resume |
| Contact PHONE:  321-999-3087  WEBSITE:  https://www.instagram.com/the\_beginner\_electronic\_maaann/?hl=en  EMAIL:  diazchris5624@gmail.com Skills  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 1 | RF Field Testing Basics 101 | 2 | Basics of Electrical/Electronics engineering | 3 | Circuit Design | | 4 | C++ | 5 | Oscilloscope front end design | |  | EDUCATIONWekiva High School 2019 - Present  Wekiva is a fair sized school located right behind Piedmont in Apopka. As of 12/12/2020, I have an average GPA of 3.78 for 9th and 10th grade with my GPA for the 10th grade being 3.85. Experience  * **Power Supply**   + I started to make this when I was still a kid and I completely flopped. I somehow blew something up and I did not have the parts to fix it. As many other kids who want to know how something worked, I took it apart and put the parts in my scrap bin. I would later use another computer power supply and just use the preset outputs instead of making it adjustable. * **Electric Skate board**   + I made the concept with all the needed parts and the way it would look when I was 12. The problem with this was that I had no money at the time and could not make it. * **Discreet Logic Time Keeper**   + With the help of 8 2.3in 7 segment led display (Thinking about using a 7 segment LCD and run it with DC to test the life time of a LCD with DC), a few CD4026B, a CD74HC11E, a few transistors, a 10MHz oscillator, and some LEDs I designed a 12hr timekeeper with milliseconds. The main challenge I faced was finding the right clock to the timing in milliseconds. In order to get the timing in milliseconds I decided to use a 10 MHz crystal/ceramic oscillator and 6 decade counters. * **Rocket Flight computer.**   + This has been one of the most challenging projects that I have done. One of the biggest challenges that I came across was finding a way to transmit GPS coordinates over a long range. Originally, I wanted to use something called LoRa but I soon realized that it would not work well enough in a rocket. This is why I decided to use 4g CDMA like that I a phone due to there already being large receivers all over the world. * **Arduino**   + Throughout the past year I have been working with Arduino. Arduino is an open source single board microcontroller. I have made many projects that use Arduino and one of my biggest problems was that I did not know enough about programing. With this in mind, I started to learn how to program in C++ outside of Arduino. * **C++**   + My biggest challenge was finding the right tutorials and I could not access an IDE to program C++. Eventually I found a website that had a large amount of task to do and learn from. I also found a website to program on, but this was not easy to use and it limited what I could do. For this reason and more I bought a raspberry pi. The raspberry pi opened up many possibilities. * **Python**   + In early September, I started to learn how to code in Python. Python is an easy to use interpreted high level programing language. By using python, I have made many Python programs, but they are mostly just different types of calculators. I also made a program to read a MPU-6050 (gyroscope and accelerometer) on my Raspberry Pi. Raspberry pi is a single board Linux pc, with external IO via the 40 pins on the side of it.  WORK EXPERIENCEJFD Capital [Car washer/Lawn maintenance] 2020–2020  At this job, I had to wash old cars for a used car dealer after they were bought from salvage auctions. I also maintained the lot at the dealer and the piece of land they owned. Here I learned to work my hardest, do it correct the first time, and take pride in your work because if you do not then it probably was not good enough. ProgramsAFJROTC 2019–present  The Air Force Junior Reserve Officers’ Training Corps of AFROTC is a high school program whose mission is to "Develop citizens of character dedicated to serving their nation and community." In this program I am a cadet, though I will soon be an officer and in charge of Stellar Xplorers when we start it. Stellar Xplorers is a national high school challenge where students compete in aspects of spacecraft’s and payload focus. For more information on Stellar Xplorers you can visit [here.](https://www.gocivilairpatrol.com/media/cms/Fact_Sheet_for_CAP_10A1882AD3238.pdf) In AFJROTC, I have also gotten many ribbons that show my accomplishments. I have received ribbons for academic success (high GPA), best flight (my group had the best paper and physical test scores), and for having good test grades for myself. Engineering Club 2020–Present  Back in 2019, I came up with an idea to bring engineering back to my school by making a club that would bring people who share an interest in making stuff. Sadly, Corona Virus happened and I had to postpone it to this year. Now this made it very difficult to because all we could do was program and meet online so those who wanted to do electronics, air/space crafts, high voltage, mechanical, or anything else of the sort left. Knowing this I started work on developing various projects for people to do and learn from. In the end my job here is to recruit people, make lesson plans, determine what projects we can do, and make sure people are on track. |
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* A combination of my love for engineering, and my spirit to keep pushing no matter what may try to take me down, allowed me to teach myself a lot about engineering. This wasn’t easy especially since I was only in Algebra 1 at the time so I h