Jacob Magnuson

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Website: jacobmagnuson.com | Github: <u>blockingthesky</u> | Codeforces: <u>blockingthesky</u> <u>Overview</u>: University of Central Florida sophomore with over six years of experience in application design, cybersecurity, advanced algorithms, and general programming. Varsity member of UCF Programming team and former math tutor. Dedicated student pursuing a career in software design and computer science education. **Projects and Positions**:

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- <u>UCF Programming Team</u> (Fall 2017 present)
 - Made varsity programming team freshman year and spent 25+ hours/week learning new algorithms and solving problems from various international competitions and Olympiads.
 - Placed 4th in both the Southeast USA Regional Contest and the Open Division of the North American Invitational Programming Contest (17th including invitees).
- Teaching Assistant (Summer 2017)
 - With four other TAs, wrote over five dozen <u>original problems</u> comprising various contests used in UCF's annual Competitive Programming Summer Institute.
- CryptoCTF (Spring 2016) High School Cryptography Competition Project Manager
 - Led a small team of 4 students to create an entirely student-run cybersecurity and cryptography competition. The online event ran for two weeks in May 2016 and had more than 2400 participants from 34 countries around the world.
- EasyCTF (2016 2017) High School Cybersecurity Competition Problem Designer / Human Resources
 - Joined the EasyCTF team to design problems, assist competitors, serve as a point of contact for teachers and students, and solicit sponsorship from various corporations.
 - EasyCTF was a student-run cybersecurity competition aimed at middle and high school students whose objective is to develop interest in and material for whitehat hackers, developers and cryptographers. It has reached over 15000 students and is used as a learning tool in classrooms around the world.

Academics and Coursework:

- MAC 2312 / 2313 Calculus II / III, MAD 2202 Linear Algebra, COT 3100 Discrete Structures, COP3330 – Object Oriented Programming, COP3502H – CS1 Honors, PHY2048C – Physics 1 Honors, MAD4203 – Introduction to Combinatorics, CDA 3103 – Computer Logic and Organization
- Competitive Programming Summer Institute Summer 2016, 2017

Activities and Groups:

- Suncoast Programming Club
 - Founded and served as President of the Suncoast Programming Club, an organization which held twice-weekly tutoring and lecture sessions for beginning and advanced programmers.
 - Organized more than 8 club trips to high school programming competitions nationwide.
- Boy Scouts
 - Became an Eagle Scout in October 2016 following a service project involving the construction of a mountain bike service station in Jonathan Dickinson State Park.
 - Served in several position of responsibility within the Troop, including Senior Patrol Leader, and coordinated trips year-round, both weekend and week-long.
- Tutoring
 - Spent more than 800 hours between 2015 and 2017 acting as a personal and group tutor in math, physics, and computer-science related subjects.
 - Livestreamed an AP Calculus AP/BC review on YouTube the night before the test. (jmag.me/calc17)
 - Mentored the FLL Robotics Program at a local middle school for four years.

Awards and Achievements:

- Competitive Programming
 - o 1st UCF Local Programming Contest 2018, UCF High School Programming Tournament 2015
 - o 2nd HP CodeWars Houston 2015 & 2017, FIU HSPC 2015 & 2016, UCF HSPT 2017
 - 4th UCF HSPT 2016, HP CodeWars Houston 2016, NAIPC 2018
 - USACO Platinum Division Competitor
 - School Duel (Tri-county Quiz Bowl) 2nd place 2016, 1st place 2017
- National Merit Semifinalist