Thomas Stuart

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EDUCATION

University of California, San Diego — **BSC in Computer Science. Minor in Math.**
GPA: 3.52 / 4.00 — Expected to graduate June 2021

PROFESSIONAL EXPERIENCE

GOLF-AI, San Diego, CA
Software Engineer — *July 2020 – Feb 2021*
Wrote production code that was deployed on a bimonthly basis to the Apple app store. Implemented the wire frames and user flow of the app. Sped up app by 3 seconds for video feedback section. Only intern hired on at the end of a summer internship.

ROBOLINK, San Diego, CA
Robotics Instructor — *Sept 2019 – Sept 2020*
Worked on a small robotic vehicle. Created and taught lessons on how to use a robotic vehicle for autonomous driving. During my time at Robolink, I created the lessons on graph theory (driving from point A to B), using IR sensors to avoid objects, etc. Additionally, taught intro python courses to high school students.

PROJECTS

IOS Pantry Genius App. | Individual project
developed an IOS app outside of school for a competition hosted by CodePath. It's an app that takes in ingredients as input and outputs recipes. Used a database to save user recipes and Spoontacular's API to retrieve recipes given ingredients . Won runner up for most innovative at CodePath competition.

Quadcopter Build | UCSD group of 2 quarter long project
In UCSD's Robotic System Design & Implementation class (CSE 176e), I built a Quadcopter from scratch. Designed a PCB in CAD software, wrote software to operate the quad. with a remote, and software to stabilize the quad. My partner & I were 1 of the 3 successful groups to get the quad. to fly out of a total of 15 groups.

Android Fitness App. | UCSD group of 6 quarter long project
Designed and implemented the cloud-based storage system with Googles Firebase. Incorporated design patterns (Builder pattern, etc.) to speed up the design process, improve code readability, and tackle common problems.

Designed ISA from scratch that ran 3 programs | UCSD group of 3 quarter long project
Wrote an assembler, compiler, and designed an ISA from scratch (formats of instructions, number of instructions, number of registers, operations, etc.) to run 3 programs (encrypt message, decrypt message, and parity checker).

NOTABLE ACCOMLISHMENT(S)

Eagle Scout Rank (Highest rank in Scouting) 36 merit badges, 7 rank advancements, NYLT leadership training, & eagle project.

SKILLS

- Languages: C, C++, Java, Swift, Python, Haskell, and Verilog
- Tools: Git, Vim, Bash, Zenhub, GDB, Valgrind, and Unit Testing
- Software design patterns I use: Builder, Factory, MVP, Adapter, Observer, and Singleton

NOTABLE COURSEWORK

Core Upper Divs		Elective Upper Divs	Math & Physics
• Advanced Data Structures	• Object Oriented Programing'	• AI: Search & Reason	• Calculus 1-3 & Vector Calc.
• Computer Architecture	• Operating Systems	• Computer Vision	• Discrete
• Computer Networks*	• Programming Languages	• Deep Neural Networks*	• Linear Algebra & Differential Eq.
• Computer Security	• Software Engineering	• Machine Learning	• Statistics
• Design & Analysis of Algo	• Software Tools & Techniques Lab'	• Robotic Sys. Design & Implem.	• Physics 1-3