Raphael Clark

Class of 2026 at Texas A&M University

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GPA: 3.47

Degree Path: Computer Science

Career Goal: To apply the principals of Computer Science to advance the US Space program and further the advancements of mankind. To further the research and development of better technology at a company such as Space-X or Tesla, or to produce and develop video games at companies like Rockstar Games or Epic.

Work Experience:

- LZ-Technologies at NASA, Johnson Space Center, MSOC Contract from May 2023 to Present
 - Software Development intern at NASA Mission Training Systems. Participated in development, integration, testing, and documentation in training simulations and displays for NASA's next generation of training software to train flight controllers and astronauts for their missions utilizing C, C++, Python, Linux, html5, xml, Json, and Trick.
- Peer Tutor at Texas A&M University for ENGR 102
 - This was a python development course where I helped students with their python programs.

Skills

- Operating Systems: Windows, Linux
- Programming languages: Ocaml, Racket, Ruby, Python, CMD, C++, Bash, Java, JavaScript, and a small bit of C# and other small languages such as Scratch, Gamemaker, Jeroo, Hack computer Assembly, and Hack.
- Programming skills: App Development, Web Development, Game Development, REPLIT, GIT, Open GL.
- Other Engineering skills: Breadboarding, IT development, Computer building, Computer repair and diagnosis, welding, and woodworking, digital circuits, discrete mathematics.

Projects:

- CSP project AP portfolio—Using JavaScript, I thought that it would be an interesting idea to make a national parks locator. I created a program that would allow the user to type in any US state and then learn about any of the parks that were in the state that they selected. It allowed you to select a park from that state and then learn about it in an interactive display.
- **Java**: I made a pong game with graphics and some extra features like speedup, color changes, and sound. I also created a Wordle, Connect Four, war game.
- **Python:** Upgraded connect four with threaded music, Go the board game, a weather software, and a plotting software using NumPy.
- C++: I made a Dungeon crawler video game using arrays. I recreated the standard Vector, LinkedList, Unordered Map with chaining, Priority Queue, and Binary Search tree classes. I made Image stitching software, a Craps game, a Pokémon trainer software, a Software that acted as a mars rover, an Image scaler, a grade calculator, and a temperature queries software.
- Racket: I created a suite of functions that showcased the functional programming capabilities of the Racket language, and an interpreter that is based off a MUPL (made up language) that I created using Racket.
- **Ocaml:** I created suites of functions that showcased the pattern matching capabilities of Ocaml, the capabilities of higher order functions and first-class functions, and the creation and use of custom variant types with the entire Ocaml language.
- **Ruby:** I Created a ruby version of Tetris with upgrades to demonstrate classes and inheritance as well as dynamic and double dispatch.

Leadership Experience: Officer of the newly formed Sea Aggie Coding Club, Elementary Honor society president, Band Drill Instructor, President of Board Game Club at CLHS, President of Wizards of the Lake Club at CLHS.