

# CASEY PEI

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## EDUCATION

**Texas A&M University**, Computer Science – 2021-2025  
GPA: 3.7 – Computer Science major, Statistics minor  
Engineering Honors Student, Craig and Galen Brown Scholar

**La Cueva High School**, – 2017-2021  
Class rank: 1 out of 415 (Valedictorian)  
SAT: 1550, ACT: 34

## SKILLS AND ABILITIES

- C++, R, React, HTML/CSS/JS, Python, C, C#, Java, x86-64 Assembly
- Experience with APIs (Twitter, Discord, Windows)
- Working on a team through GitHub, Git and Perforce
- Experience with Docker, Heroku, Azure
- Use of SSH and WSL for Unix

## RELEVANT COURSEWORK

- software engineering (currently taking)
- computer systems (currently taking)
- data structures and algorithms
- computer organization
- discrete structures

## PROJECTS

**Grappling with School** ----- January - May 2022  
1<sup>st</sup> Place and Best Designed Game -- a 2D Platforming Puzzle Game made with Unity and C# over one semester.

**TindAir** ----- October 2022  
A location-based messaging in app made in a 24hr Hackathon (100+ participants); used React, HTML/CSS/JS, webhooks.

**Time Leap** ----- August - December 2021  
Winner of Best Programmed Game -- 2D Platforming Race Game made over a semester, using Unity Engine and C#.

## WORK EXPERIENCE

**Texas A&M University Health Science Center**, Research Assistant, previous Hamill Undergraduate Intern ----- June 2022 - Present  
Worked with biomedical research team via application of bioinformatics to develop Python, C++ and R codes and machine learning algorithms in support of genomics research. Presented work on detecting methylation patterns of 68 million DNA reads for preliminary research in early breast cancer detection.

## ACTIVITIES

**Aggie Coding Club**, Projects Chair (Spring 2023), Vice President (Fall 2023) ----- August 2021 - Present  
Managing the project managers (40+) and project members (450+) of Aggie Coding Club, by giving guidance, answering technical problems, setting up GitHub repositories.

- Fall 2022, Spring 2023 – organized 450+ members into 20+ projects, using a bot connected to the Discord API, of various topics ranging from model rocketry to mobile and web applications. ([github.com/aggie-coding-club/ACC-Project-Sorter](https://github.com/aggie-coding-club/ACC-Project-Sorter))
- Spring 2022 - leading a project of 20+ people using Twitter AP via Python involved with webscraping data, as well as interacting with users via DMs and replies, hosting via Heroku by Salesforce. ([github.com/aggie-coding-club/twitter-bots](https://github.com/aggie-coding-club/twitter-bots))
- Fall 2021 - in a project splicing clips based on auditory phrase detection with CMUSphinx, Python, Docker. ([github.com/aggie-coding-club/EZ-YTP](https://github.com/aggie-coding-club/EZ-YTP))

**ENGR Teaching Assistant Organization**, Vice President ----- August 2022 - Present  
Organizing exam reviews (1k concurrent viewers, 6.9k drive viewers total last semester), teaching over 2.6k students Python, Numpy and Matplotlib, and collaborating closely with professors and peer teachers for Texas A&M's ENGR 102 and 216 courses.

**AI4ALL**, Changemaker, Discover AI and Apply AI Participant ----- January 2022 - Present  
Online program that teaches skills to create AI and machine-learning algorithms using the Pandas library in Python. Worked on a project with three other students for a final project that will model stock prices based using transformers.

**Texas A&M Game Developers**, Game Jam Winner, member ----- August 2021 - Present  
Attended presentations from video game industry professionals and workshops. Participated in a semester-long game jam in a team of three peers, where we self-led weekly meetings and made a 2D platforming game in Unity.

- Best Programmed Game (judged by 3-person industry panel) – TAGD Fall Game Jam 2021
- 1<sup>st</sup> Place and Best Designed Game (judged by 3-person industry panel) – TAGD Spring Game Jam 2022

**Society of Women Engineers**, member, previous Funds Committee Member ----- August 2021 - Present  
Member of the Funds Committee, where I worked with five other members to organize a semester fundraising event with a

*committee of other students as well as give presentations at general meetings to members (30+).*