

JUSTIN FOSTER

Computer Science Student, Graduating May 2023

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EDUCATION

B.S., Computer Science

University of Texas, Austin

August 2019 – May 2023 Austin, Texas

- GPA: 3.78
- Named Lockheed Martin Rotary and Missions Systems Undersea Scholar by Dolphin Scholarship Foundation
- University Honors Spring 2020 through Spring 2021

High School Diploma

The Woodlands College Park High School

August 2015 – May 2019 The Woodlands, Texas

- GPA: 5.17 | Graduated Magna Cum Laude

EXPERIENCE

Seeker Mission Researcher and Developer

Texas Spacecraft Laboratory

February 2021 – Current Austin, Texas

- Tasked to build the machine learning and computer vision algorithms that enabled Seeker to identify Northrop-Grumman Cygnus satellite and estimate relative bearing
- Completed performance analysis and optimization of software to further mission success

Coding Instructor

CodaKid

May 2021 - Current Austin, Texas

- Taught students aged 5-15 in Python, JavaScript, Java, Lua, and Scratch
- Streamlined teaching skills to maximize time in class in order to build Mods for Minecraft, games in Roblox, and fun programs like Tetris
- Tracked progress of as many as 9 students a day and gave constructive feedback for skills requiring improvement.

SKILLS

C, C++

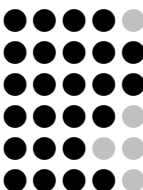
Java

Python

Git

Linux/ Unix

Adobe Suite



LEADERSHIP

Computer Manager of Tejas

The Tejas Club

Dec 2020 – Present Austin, Texas

- Manage Club website and online presence
- Serve as an Officer of the Tejas Club

Eagle Scout

Boy Scouts of America

2010 – 2017

- Led projects, planned campouts finishing with 120 nights, and pioneered volunteer events through the Boy Scouts
- Organized, designed, and led a final Eagle Scout project over the course of 3 months:
 - Built a 7 ft Wooden Kiosk outside of Lake Creek preserve
 - Kiosk Displays Preserve wildlife information, history, and trails

PROJECTS

Cygnus Image Generation / Bran Modification

- Generated image sets using Blender's API and wrote python scripts to train Seeker team's Cygnus Pose-estimation model
- Modified Seeker Team software, Bran, used to train Pose-estimation model in order to accommodate new GovCloud restricted project

Pintos Operating System

- Semester-long project to refactor and add functionality to a toy Operating System
- Implemented priority scheduling for processes and allowed argument passing on the stack
- Enacted system calls for user programs, added virtual memory, and converted the existing single-thread file system into an multi-threaded, multi-level indexed file system.

Parallel Page Rank Algorithm

- Implemented the algorithm by traversing over nodes before edges in order to maximize efficiency and balance load across threads
- Completed a study based on different methods of optimizing Google's Page Rank algorithm using p-threads in order to determine which method was most efficient