ALBERT CHO

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EDUCATION

The University of Texas at Austin Bachelor of Science in Computer Science 2019 - 2023

Overall GPA: 3.94

Westwood High School Rank: **14/627** 2015 - 2019

Overall GPA: 4.00

EXPERIENCE

Learning Agents Research Group - Researcher

Jan 2020 - Present

- Engineered robots and technologies to analyze human-robot interaction and improve applications for human service
- Developed ROS One-Shot Facial Recognition, CYK Semantic Parser, and Anticipatory Gaze for use in mobile robots

Savers - Employee May 2018 - Sept 2018

- Managed hundreds of customers daily while fulfilling duties as part of a dynamic services team
- Performed check outs, cleaning, customer service, and general floor duty

PROJECTS

Anticipatory Gaze - C#, Unity, Final IK

Spring 2021

- Tested anticipatory gaze through eye/body trackers to draw a correlation between gaze and the direction an entity will go
- Developed gaze vector scripts and interactive virtual reality environments for testing and gathering motion data
- Expanded human-robot interaction and applications with data for robots to **read and influence** human body language **CYK Semantic Parser** *C++*, *Boost*

Implemented the Code Valuage Vacami parsing algorithm to improve the computational efficiency of dialogue agents

- Implemented the Cocke-Younger-Kasami parsing algorithm to improve the computational efficiency of dialogue agents
- Utilized manual memory management, reduced structure access times, and threads to improve compute performance
- Reduced overall memory usage to 21% and average parsing run time by 8% over thousands of tests

MedView - Python, HTML/CSS, Jinja

Fall 2020

- Created website to help users visualize the health institutions their health insurance provider or plan covers
- Retrieved database information such as benefits, pricing, and location of health institutions to put onto interactive map
- Developed back-end web routing and mapping structure as well as front-end format, animation, and overall aesthetic

One-Shot Facial Recognition - Python, ROS, OpenCV

Spring 2020

- Implemented a Siamese network into agents using mobile hardware to utilize one-shot facial recognition for security
- Reduced training data needed by 60% and time to authenticate to under 200ms on low framerates

QuickFit - Java, Android Studio

Fall 2019

- Automated fitting room experience for large scale clothing stores by creating an online mobile queue system
- Enhanced total business resources and customer-store interaction through automation
- Won the Best Design Award in Texas Convergent from a panel of startup representatives and college professors

General Course Projects - Java, C, x86-64 Assembly

Spring 2020 - Present

- Computer Architecture/Operating Systems: y86-64 Pipe-Cache Simulator, Memory Allocator, Bomb/Attack, Shell, Threads
- Data Structures: Huffman Coding, Common Data Structures, Recursion, Graph Algorithms

LEADERSHIP EXPERIENCE AND ACTIVITIES

Freetail Hackers HackTX - MedView Team

Fall 2020

Worked with a team to come up with creative and technological solutions that benefit the community (MedView)
 Texas Convergent - Retail Tech Build Team

Fall 2019 - Present

Worked with a team to build and design technological prototypes and business proposals (QuickFit)

Tempest Designs - Freelance Graphic Artist | **tempestdesigns.art**

Summer 2015 - Present

Designed, edited, and animated more than 250 visual signatures based on user input for both companies and clients

ADDITIONAL INFORMATION

Computer Skills: Java, C/C++, Linux/UNIX, Git, Photoshop, After Effects, Premiere Pro

Relevant Courses: Data Structures, Computer Architecture, Operating Systems, Machine Learning (SO), Linear Algebra Languages: English, Spanish (Working Proficiency)

Interests: Software Engineering, AI, Machine Learning, Data Science, Health, Graphic Design, Film, Spikeball

Work Eligibility: Eligible to work in the U.S. with no restrictions