JERRY HE

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SUMMARY

Junior at the University of Texas at Austin with over 6 years of combined Java, C, and DHTML development experience in collaborative and solo environments. Dedicated to integrating technology into daily life through human-computer/robot interaction. Actively seeking opportunities to advance skills in a challenging and dynamic environment.

EDUCATION

The University of Texas at Austin [Austin, TX]   Aug 2022 - May 2026
Bachelor of Science in Computer Science
- GPA: 4.0

PROJECTS

PintOS Implementation
- Developed and enhanced functionalities in the PintOS operating system as part of an operating systems course
- Demonstrated a comprehensive understanding of kernel-level design and core operating system concepts
- Implemented key components, including system calls, process scheduling algorithms, thread synchronization algorithms, deadlock avoidance paradigms, virtual memory management, and file system operations
- Collaborated with a team of four members to design and select optimal implementation techniques, ensuring a unified understanding of objectives and the seamless integration of system functionalities

ARM System Emulator
- Designed and implemented an ARM simulator for the chArm-v2 ISA in C as part of a computer architecture course
- Showcased a deep understanding of computer architecture principles and collaborative pair programming
- Successfully incorporated an instruction pipeline with signal/hazard control and a two-level memory hierarchy

Sertinary Application
- Developed a cross-platform Flutter & Firebase app to support users in achieving their health and fitness objectives.
- Exhibited seamless integration of backend services with an intuitive, user-centric interface
- Implemented features for creating persistent alarms, tracking food intake, displaying nutritional information, and facilitating the real-time creation and sharing of custom meal recipes

EXTRACURRICULARS

Engineering and Computational Learning of Artificial Intelligence in Robotics   Jan 2024 - Present
Autonomous Vehicle Systems Engineer & Human Vehicle Interaction Designer
- Developing a small-scale autonomous vehicle for track navigation and human instruction adaption
- Utilizing a bifocal camera for computer vision to enhance track navigation and ensure boundary compliance
- Ongoing implementation of track specifications, vehicle-laptop communication, and natural language processing

Kehilat Sephardim Food Pantry Volunteer [New York City, NY]   Jul 2021 - Sep 2021
- Contributed to serving over 20,000 individuals every week during challenging post-lockdown times
- Registered new families in need, organized stock, planned events, transported goods, provided Mandarin to English translation, offered guidance to newcomers, and trained volunteers to extend support to additional families

AWARDS

The Bronx High School of Science Atom Hacks VIII Third Place Winner
- Developed a mobile medication and meal-tracking app to help users monitor and enhance their health routines

The Bronx High School of Science Certificate of Excellence in App Development
- Signifies the recipient's outstanding skills in conceptualizing, designing, and developing mobile applications