FORREST SUN

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EDUCATION

The University of Texas at Austin   *Expected Graduation, May 2024*

Bachelor of Science in Computer Science, GPA: 3.57   Austin, TX

Relevant Coursework: Data Structures, Discrete Mathematics, Probability & Statistics, Operating Systems, Compilers, Algorithms & Complexity, Object-Oriented Programming

PROJECTS

Pintos Operating System & Unix Shell | *C*   *JAN 2022 - MAY 2022*

- Established an operating system that correctly handled **threads**, **user programs**, **virtual memory**, and **file systems**
- Assembled a UNIX shell to **read command-line prompts** from the terminal to **process and execute user input**
- Worked in a **team of four** and applied **pair programming** techniques to accelerate the problem solving and debugging processes

Pascal Parser | *C, Pascal*   *JUL 2022 - AUG 2022*

- Implemented a parser in **C**, using **shift-reduce parsing**, for **lexical and syntactical analysis** to read a **Pascal** code framework
- Utilized **symbol tables represented as binary trees** associating names with their object information to allow for expedited lookup
- Built tree structures off of **operator precedence** with **Yacc/Bison** specifications

Collatz Conjecture Optimization | *C++*   *SEPT 2022*

- Developed an algorithm to find the maximum cycle length within a specific range in the **Collatz Conjecture**
- Optimized the algorithm with **lazy caching** resulting in a **3x faster processing speed**

Data Structures Implementation | *Java*   *JAN 2021 - MAY 2021*

- Composed numerous classes built around different data structures using **linked lists**, **abstract classes**, **recursion**, **binary search trees**, and **graph algorithms**
- Designed **searching and sorting algorithms** in separate classes and consolidated them into one class

TECHNICAL SKILLS

Languages: C/C++, Java, Python, HTML/CSS

Developer Tools: VSCode, Git, GitHub, GDB

LEADERSHIP EXPERIENCE

UT Austin Chinese Student Association | *President*   *MAY 2022 - PRESENT*

- Supervised a **team of 11 officers** to properly prepare, manage, and **host events of over 100 people** through weekly meetings to keep the organization running smoothly
- Communicated regularly with campus organiziations as well as **external companies** to effectively collaborate on large-scale events
- Coordinated a successful Mid-Autumn Festival with food and performances attended by **over 800 people**

UT Austin Asian Business Student Association | *Webmaster*   *SEPT 2020 - MAY 2021*

- Maintained and updated the official website, including refreshing current and upcoming events, and adding **unobtrusive widgets**
- Tracked and analyzed **open rates and click patterns** for hundreds of emails

GEA of Texas | *Quality Assurance Tester*   *NOV 2019*

- Organized, formatted, and added products to the website in a **team of four** people, attaching metadata to each item
- Discovered and identified the source of site-breaking failures and collaborated with technicians to resolve issues

INTERESTS & HOBBIES

Bouldering, Shoutcasting, Swimming, Music, Ultimate Frisbee, Videography