

Jack Vacek

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EDUCATION

Texas A&M University | Craig and Galen Brown Engineering Honors **College Station, TX**
Bachelor of Science in **Computer Science** | Emphasis: **Japanese Language & Culture** **September 2021 - May 2025**
Cumulative GPA: **3.96** | Honors: National Hispanic Scholar, Fall 2022 Dean's Honor Roll, IAP Visa Scholarship

PROJECTS

Kung Fu Tea Point-of-Sale System | PostgreSQL, Java, JavaFX, Python, AWS, Express.js, React.js

- Led a student team preparing a database of bubble tea orders, menu items, employees, and inventory on A&M servers.
- Compiled 4 different views to connect, query, and modify the PostgreSQL database for the shop online and offline.

Multi-Threaded Client to Server ECG Retriever | C, C++

- Collects data points or files of patient ECG data from a server using TCP/IP protocol, allowing multiple client connections.
- Consumer and producer relationship in multi-threading through 2 bounded buffers and created an independent speedup.

Seam Carving | C++

- Takes images with portable pixmap format and removes "unimportant" parts of the picture to resize into a compact format.
- Based on an algorithm that gives each individual pixel a weight for how vital they are within the context of the picture.

Student Attendance Tracker | Java, JavaFX

- Implemented an easy-to-use interface to query student attendance data from a multitude of days stored within a text file.
- Created students and student rosters utilizing polymorphism and inheritance to make reusable, streamlined code.

Sniff and Spoof | C, PCAP, Docker

- Employed PCAP for packet manipulation to receive sensitive data from a server processing data from a specific IP address.
- Utilizes Docker commands in order to run a victim terminal for server and attacker terminal for sniffing and spoofing.

EXPERIENCE

AI4ALL Ignite | *Student, United States*

January 2024 – October 2025

- Participating in a 20 week program designed for students to create and present AI driven projects in a student symposium.
- Developing a linear regression model in a student-run team to predict computer science salaries in India based on 5 factors.

Layer 3 Communications | *Installation Technician, Houston, TX*

May 2023 – August 2023

- Determined hardware needs for projects in Cypress Fairbanks Independent School District and the University of Houston.
- Installed over 2000+ networking hardware including wireless points, network switches, and uninterruptible power supplies.

Liberty Lift Solutions LLC | *Accounting Assistant, Houston, TX*

August 2020 – August 2022

- Researched and reconciled over 100+ vendor issues pertaining to past-due invoices, missing invoices, and overpayments.
- Maintained and organized over 3000+ accounts payable documentation for over 150+ different companies.

RELEVANT COURSES

Honors: Computer Organization, Data Structures & Algorithms, Programming Studio, Linear Algebra

Other: Discrete Structures for Computing, Introduction to Computer Systems, Introduction to Computing, Introduction to Program Design & Concepts, Programming Languages, Design and Analysis of Algorithms, Machine learning, Software Reverse Engineering, Calculus I-III

SKILLS

Software Skills: Agile, SCRUM, Jira, PostgreSQL, AWS, Express.js, React.js, RESTful APIs, HTML, Cascading Style Sheets (CSS), JavaScript, TypeScript, Java, JavaFX, Python, C, C++, Jupyter Notebooks, Scapy, PCAP, Docker, Git, UML

Affiliations: Aggie Competitive Programming, Texas A&M Cybersecurity Club, Japanese Culture Association, Intramural Volleyball, Intramural Soccer, Intramural Kickball, AI4ALL Ignite

Languages: Japanese, Beginner Proficiency