Fu-Yao (Jefferson) Yu

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Education

The University of Texas at Austin - Austin, TX   Aug 2021 – May 2025
Bachelor of Science in Electrical and Computer Engineering Honors & Bachelor of Arts in Economics. GPA: 4.0
Relevant Coursework: Algorithms, Operating Systems, Data Structures, Embedded Systems, Digital Logic Design

Lawrence E Elkins High School, Fort Bend ISD Engineering Academy - Sugar Land, TX   Aug 2017 – Jun 2021
Valedictorian in class of 633; GPA: 4.0, SAT: 1580, ACT: 36; National Merit Scholar; Top 3 Winner at HP CodeWars
Two-time winner of the Texas Inventathon; American Invitational Mathematics Examination (AIME) Qualifier

Work Experience

IMC Trading - *Software Engineering Intern.* Chicago, IL   Jun 2023 – Aug 2023
- Spearheaded project to modernize a manual 1.8TB query into a real-time quoting analysis tool, optimizing insights
- Deployed high-performance, scalable trade data linker with Kafka streams, publishing 100,000+ new daily messages
- Won 1st place with self-coded autonomous trader in intern market-making and trading simulation competition

Samsung - *GPU Software Development Intern.* Austin, TX   May 2022 – Aug 2022
- Built 4 image validation tools to provide comprehensive reports to the SARC Compiler Team
- Analyzed complexity of 12 graph algorithms by integrating open-source libraries to diagnose compiler issues
- Partook in Programming Language Design presentations to grasp nuances of C, C++, Java, and other languages

Projects

UT Austin Electrical and Computer Engineering Lab - *Undergraduate Researcher.* Austin, TX   Aug 2022 – Present
- Developed *JAttack*, a compiler-testing framework using templates. Ran tests with 5,000 templates from 77 projects
- Discovered 7 critical bugs in the Oracle Java compiler, prompting fixes for previously unknown vulnerabilities
- Published in the 2023 Intl. Conference on Software Engineering. Awarded feature in the Texas Research Showdown

Engineers' Week Development Team - *Front-End Developer.* Austin, TX   Aug 2022 – Present
- Created a web app with Node, React, and Amazon AWS to integrate Engineers' Week events, info, and scoring
- Enabled ease of scheduling and point tabulation for over 500 E-Week participants across 15 campus organizations

Elkins High School TMSCA Math Contest - *Lead Organizer & Developer.* Missouri City, TX   Dec 2018 – Jan 2020
- Coordinated a math contest with 500+ contestants and 200+ volunteers from scratch
- Digitized contest by programming a web application (HTML/JS/CSS) to automate registration, grading, and scoring
- Raised over $9,000 in revenue for community math programs. Digitalization improved time efficiency by 300%

Leadership, Community Involvement, & Awards

Algorithms Teaching Assistant	Aug 2023 - Present
Society of Asian Scientists and Engineers - Vice President External	Dec 2021 – Present
SEC Annual Case Competition, First Place	Nov 2021
Texas Convergent - Forge Startups, *VlogMi* Tech Developer	Aug 2022 – Jan 2023
Taiwanese American Students Association - Member	Aug 2021 – Present
High School Math and Science Club - President and Team Captain	Apr 2018 – Jun 2021

Skills & Interests

Programming: Java (advanced), C/C++ (advanced), Python (intermediate), JavaScript, HTML/CSS, Assembly
    CS50 (C, Python, SQL) Certification, awarded by Harvard University
Software: Microsoft Office, AutoCAD, Autodesk Inventor, Adobe Photoshop, Adobe Premiere Pro
Languages: English (fluent), Mandarin Chinese (fluent), Spanish (intermediate)
Interests: Piano, Biking