Owen Cai

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Education

Texas A&M University   College Station, TX
BS Computer Science, Engineering Honors (GPA: 4.0)   *May 2027*

Selected Coursework: Data Structures and Algorithms, Discrete Mathematics, Program Design, Linear Algebra

Experience

Texas A&M Aggie Research Program   March 2023 - November 2024
Undergraduate Researcher   *College Station, TX*

- Leading undergraduate research group, delegated tasks to other undergraduates
- Compiling review paper on ML application to battery & supercapacitor thermal management
- Researching application of ML to coaxial supercapacitors for upcoming paper

Engineering TA Organization   November 2024 - Present
Web Developer, Social Officer   *College Station, TX*

- Co-programmed winter final exam reviews page, providing development feedback along with UI design
- Coordinated events and promotions to target freshman engineering students demographic

Projects

Magical Menu   November 2024 - Present

- React Native app to display TAMU dining hall menus
- Created server-side cache w/ AWS Lambda & DynamoDB, halving loading times
- Local Cache (AsyncStorage) loads recently viewed menus instantly
- Ignored redundant API responses, fixing bug where rapidly switching mealtimes broke official app/website
- Implemented favoriting system to allow users to mark food of interest

Personal Website   January 2025 - Present

- Developed with Next.js and TailwindCSS in an industrial visual style
- Designed and programmed promotional pages for Magical Menu to increase engagement
- Deployed to the internet with Vercel

Discord Bot   July 2022 - Present

- Retrieved user profile information from the League of Legends REST API
- Generated custom images to display users' bot statistics using Python pillow package
- Streamed video from internet to Discord voice channels to allow music listening in voice channels

Honors

CodeForces (Competitive Programming, Like USACO)   November 2024
1317 Rating (Top 30%)

National Merit Foundation   May 2024
National Merit Scholarship Finalist

USA Computing Olympiad   January 2023
USACO Silver Division

Skills

Asynchronous Programming, REST API, Version Control (Git), Java, Python, React Native, React, TailwindCSS, C++, JavaScript, HTML, CSS, SQL, Microsoft Azure, Vultr, IntelliJ IDEA, PyCharm, Visual Studio Code, Microsoft Office, Machine learning, pandas, scikit-learn, NumPy