Owen Cai

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Education

Texas A&M University   May 2027
Bachelor of Science in Computer Science, Engineering Honors   *GPA: 4.0*

Relevant Coursework: Data Structures & Algorithms, Discrete Mathematics, Probability, Linear Algebra

Experience

Switchless   January 2025 - July 2025
Software Engineer Intern   *College Station, TX*

- Programmed backend software running on smart home hub with **FastAPI & Django** frameworks
- Wrote smart home **automations** logic & matching **CRUD REST API** endpoints
- Displayed **smart device information in real-time** by implementing **WebSocket subscription** API
- Enabled sign-in w/ **QR Code** by reworking UUID4 authentication tokens

TAMU Chinese School   January 2025 - Present
Programming Teacher   *College Station, TX*

- Taught classes of 16 elementary schoolers **programming logic**, **debugging**, & game development w/ **Scratch**
- Prepared **weekly slideshows** for each class session to aid in instruction
- Wrote custom exams to assess **problem-solving** skills and programming best practices

Projects

Magical Menu App   November 2024 - Present

- Mobile app (**deployed on app store**) efficiently displaying dining hall menus, **90 downloads** in 1st month
- Halved loading times by **caching** menus and mealtimes on both client and AWS serverless backend
- Built a **status API**, informing users of outages and improving retention
- **Fixed race condition** in official website when rapidly switching mealtimes by ignoring irrelevant API responses
- Implemented **favorites system**, allowing users to easily distinguish their preferred foods
- **Designed & programmed product page** to showcase app; **700 impressions** on app stores

ApplyingToCollege Decision Date Calendar   May 2025 - Present

- Wrote custom table frontend to display college decision dates for **80,000** daily users
- Fetched decision dates from **Google Sheets API** to allow non-technical contributors to edit data
- Cached API responses with Next.js cache, saving costs by reducing new API calls by **99.4%**

Multithreaded Selenium Webcrawler   May 2025 - Present

- Contributed to **anti-phishing ML research**, scraping **44K+** known phishing sites with **Selenium webcrawler**
- **Increased speed** of webcrawler by **over 150%** using **multithreading**

ApplyingToCollege Spam Detection Discord Bot   October 2025 - Present

- Automated spam detection for Discord community of **45K+ members**, by detecting duplicate message contents
- Issues over 20 infractions per month, **saving** moderation team **2 hours per month**

Honors

CodeForces (Competitive Programming, Like USACO) – 1319 Rating (top 35%)   November 2024
National Merit Foundation – National Merit Scholarship Finalist   May 2024
USA Computing Olympiad – Silver Division   January 2023

Skills

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