

Jonathan Ye

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Full-Stack & Software Developer

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Education

Stanford University, Stanford, CA | GPA: 3.95

June 2027

B.S. in Computer Science

Key Coursework: Programming Abstractions, Probability for Computer Scientists, Computer Organization and Systems, Operating Systems Principles, Design and Analysis of Algorithms, Infrastructure at Scale

Experience

Amazon | Internship

Dallas, TX

Software Development Engineer | Java, AWS, MCP

June 2025 – Present

- Interning @ PXT (People eXperiences Technology)

Stanford Cybersecurity + AI Lab | Research

Stanford, CA

Researcher | Python, Typescript, React.js, Docker

Dec 2024 – June 2025

- Enhanced Cybench and Bountybench's functionality—cybersecurity benchmarking tools for LLM models—by developing and integrating high-quality CTF challenge and bug bounty tasks into the CI using **Python** and **Docker**
- Interacted with server-side software through the configuration and testing of API requests and endpoints
- Improved user experience, speed by 300%, by implementing features on front-end and agent workflow on the back-end
- Safely implemented changes by developing unit tests and collaborating with PR reviewers to ensure code quality/integrity

Grade Soar | Internship

Remote

Software Engineer | Javascript/Typescript, React.js, Next.js

July 2024 – Sep 2024

- Designed and deployed a robust learning management system through effective team collaboration
- Delivered a responsive user interface by leveraging the MUI component library and Flexbox
- Enabled parameter customizability in components using **Javascript**
- Streamlined team development by delivering progress updates in scrums and synchronizing contributions via **Git**

Projects

Poke Pocket Market | Javascript/Typescript, React.js, Next.js, Firebase, Digital Ocean

- Built and deployed a trading platform for 100+ active users who play Pokemon TCG Pocket
- Designed **Firestore** database and algorithms that improve operation efficiency by 500% on user and card records
- Delivered a modern user interface and user experience with **Tailwind CSS** and ShadCN components
- Automatically update cards by data scraping 1000 cards/second with **Python** and storing data in **Firebase Cloud Storage**
- Allowed HTTPS connection using **Nginx** reverse proxy to redirect traffic within **Digital Ocean** server with 99.9% uptime

Aspen | Discord.py, OpenAI API, LangGraph, Exa API, Python

- Built an AI-powered therapist that monitors Discord channels and reaches out to individuals in distress
- Directed the flow of conversation phases with **LangGraph** and **OpenAI** prompting
- Implemented web searching/crawling with **Exa API** to use intake information and design a therapy plan

Data Processor and Map Dashboard | Javascript/Typescript, React.js, Next.js API, Mapbox API

- Retrieves 200 normalized housing listings/second by processing and cleaning raw API data with **Typescript**
- Improved data fetching speed by 1000% with optimized API route interaction with **PostgreSQL** and **Prisma**
- Displays and imports 1000 listings/second into a customized Mapbox API component

Skills

Front-End: React.js, Next.js, Javascript/Typescript, HTML/CSS

Back-End: Firebase (NoSQL), Nginx, Digital Ocean, Docker

Languages: Python, C, C++, Java, C#

Other: Git/Github, Linux, Postman