

JOHN XU

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EDUCATION

Duke University

Expected Graduation: May 2026

B.S. in Computer Science & Minor in Finance

Durham, NC

- **GPA:** 3.98
- **Extracurriculars:** Tech Chair, Scale and Coin Society; New Member Educator, The Cube Entrepreneurship Living Group
- **Awards/Honors:** Frank Borchardt Undergraduate \$30k Prize, Melissa and Doug Entrepreneurship Fellow
- **Relevant Coursework:** Algorithm Design and Analysis, Server-side Web Apps, Machine Learning, Data Structures and Algorithms, Computer Architecture, Discrete Math for Computer Science

WORK EXPERIENCE

Appian

June 2024 – Present

Full Stack Development Intern

McLean, VA

- Redesigning Appian's documentation site with UX team using Jekyll and Liquid
- Implementing RAG search on doc site using Ollama, LangChain, and Chroma
- Developing a Lighthouse-based analytics tool to monitor and reduce all pages' load times by over 30%
- Writing shell scripts to automate local builds and remove 260+ unused website assets

Fidelity Investments

June 2023 – Aug 2023

Software Engineering Intern

Durham, NC

- Designed schema and built a 55k+ asset knowledge graph database using Neo4j
- Cut frontend search time from 1.5s to less than 200ms through Cypher tuning
- Developed unit tests with Pytest and custom DB visualization with React
- Created chatbot with Nous-Hermes-13b model for knowledge graph queries

Focal LLC

Sept 2020 – Aug 2022

Co-Founder

San Jose, CA

- Developed backend using Firebase for Focal, a web and mobile productivity platform
- Grew Focal to over 20k downloads
- Designed web and mobile frontend using Figma, Flutter, and React
- Iteratively refined product features based on consistent user feedback

PROJECTS

Alleviate Health | *Next.js, AWS, PostgreSQL, FastAPI, Docker*

Feb 2023 – Present

- Developed Next.js web frontend for Alleviate Health, a platform that automates clinical trial recruiting
- Engineered a voicemail extraction pipeline from outdated phone systems with CloudFlare email workers
- Developed a REST API with FastAPI to interact with PostgreSQL database on CockroachDB
- Secured \$40k in funding through grant applications and pitch contests

Meditune | *Flutter, Dart, Firebase, FFmpeg, React.js*

Feb 2022 – August 2022

- Built Meditune's frontend with Flutter, an app that provides notched sound therapy for tinnitus patients
- Created audio-notching algorithm that filtered sound frequency ranges from mp3 files with FEmpeg
- Cold-called local ENTs to establish distribution networks for beta testing and iterated on product feedback

SKILLS AND INTERESTS

- **Languages:** Python, HTML/CSS, Javascript, Typescript, Java, Dart, SQL, Cypher
- **Frameworks/Libraries:** React (Next.js), Node.js, Express.js, Flutter, Tailwind, Flask, FastAPI, Pytest
- **Technologies/Services:** Firebase, MongoDB, Postgres, Neo4j, AWS, CockroachDB, Digital Ocean