

# Andrew X. Ding

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## PROFILE

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Passionate software engineer with a strong systems design and product-driven foundation. Navigates ambiguity by pairing holistic first-principles thinking with a move-fast, experimentally-driven development.

## EDUCATION

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### Brown University

Sc.B.in Computer Science

Providence, RI

Graduated May 2023

- Courses: Algorithms & Data Structures, Software Engineering, Computer Systems, Distributed Systems, Data Science, Machine Learning, Deep Learning, Computational Linguistics, Computer Vision, Blockchains & Cryptocurrencies

## PROFESSIONAL EXPERIENCE

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### TikTok (Full-Time)

San Jose, CA, September 2023 – Present

Software Engineer, Ads Core Team

- Personalized ad displays for millions of users by modeling sensitivity via uplift modeling; batch-retrained model using XGBoost in X-Learner configuration; holdout exp. showed 2% gain in advertiser value from better personalization.
- Spearheaded industry-based frequency caps to reduce ad repetition on TikTok, played a crucial role in recovering stay duration metrics while maintaining advertiser value; written in C++ in targeting stage of ads recommendation system.
- Optimized SQL and Spark jobs for heavy (> billion rows) data engineering workflows for feature aggregation, decreased job time from 22 hrs to 40 mins.

### TikTok (Summer Internship)

Mountain View, CA, June 2022 – August 2022

Software Engineer Intern, App Monetization Team

- Navigated the iOS14 data blackout by modifying existing ESMM architecture to use transfer learning on Android data to predict iOS user behavior; 5% AUC gains over the baseline model in A/B testing.
- Introduced a unified product ID label based on app store descriptions, helping the team deduplicate ad inventory.

### AUXPAD Notes, [app.auxpad.com](http://app.auxpad.com)

Providence, RI, July 2020 – December 2021

Technical Co-Founder

- Founded notetaking startup using speech-to-text to help slow note-takers with in-person and remote meetings/classes.
- Launched AUXPAD on Product Hunt; transcribed over 3K minutes of audio for over 200+ loyal verified users.
- Led team on full-stack development: frontend user experience with React, Redux, Typescript; backend REST API with Express; NoSQL and Auth with Firebase; deployed with clustered Node.js server.
- Orchestrated CI/CD with Cypress, Mocha Chai; merged 100+ PRs, pushed 1.6K commits to production.
- Engineered splicing algorithm for improving hours-long gRPC audio streams in poor network conditions.

## PROJECTS

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### Generative UX Demo | Python, BeautifulSoup | [GitHub](#), [Try-it](#)

San Francisco, CA, March 2024

- Explored the use of real-time generative UI in tailored user-to-AI interactions, entrant at the OpenAI hackathon.

## ON-CAMPUS EXPERIENCE

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### Brown Opinion Project | Web Director

Providence, RI, Sept 2021 – May 2023

Technical Co-Founder

- Led the polling team in creating visualizations of Brown campus polling results using Sheets API and React Frontend.

### Brown Division 1 Varsity Men's Crew | Academic Walk-on

Providence, RI, Sept 2018 – Jan 2020

- Walked-on to become an oarsman on the Brown D1 team which has placed top 6 nationally for the last 10 years.
- Trained on the Seekonk River 4 hours/day, 6 days/week; raced in regattas incl. Head of the Charles, Eastern Sprints.

## SKILLS & INTERESTS

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Languages: C++, Python, Golang, SQL, Typescript, JavaScript, Java, C, HTML & CSS

Frameworks: NumPy, PySpark, Pandas, React, Redux, Express, Node.js, TensorFlow, Mocha Chai, Flask

Tools: Redis, HDFS, MapReduce, Firebase, MongoDB, Cypress, Heap, GCP, AWS, Vim, SSH

Interests: Watercolor, Game Design