LINENG(VINCE) CAO

as **Senior Software Engineer**

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🏃 Stack

Frontend	*React, Typescript, JavaScript (es6+), TailwindCSS, Radix-ui, Jest, Cypress, Babel, Webpack, Vite, Rollup, Three.js(R3F), d3.js;*
Mobile	*React Native, Electron, SwiftUI, Flutter;*
Backend	*Next.js SSR, Nodejs, Remix, Redis, Websocket, Server-Sent Events, MongoDB, PostgreSQL, GraphQL, Nestjs, Fastify;*
Infra/DevOps	*Github Actions, Git, Terraform, Docker, Kubernetes, AWS, Supabase, Firebase;*

🎓 Education

M.S in Computer Science at **University of Southern California**	*Los Angeles, CA, Aug 2018 - May 2020*
B.S. in Computer Science Major, Mathematics Minor at **Kean University**	*Wenzhou, China, Aug 2013 - May 2017*

👨‍💻 Employment

Senior Software Engineer,   *San Francisco, CA, Jul 2023 - Present*
Software Engineer at **DeepScribe**   *San Francisco, CA, Jan 2020 - Jul 2023*

- As early founding engineer, designed, lead and built mission-critical practitioner portal, Twilio and Vonage telemedicine solution, early Human-in-the-loop (HITL) web platform solution, serving thousands of healthcare providers nationwide daily, reducing workflow complexity while maintaining high medical note quality and efficiency rate.
- As a part of applied-ai team, collaborated with ML engineers to develop specialty-focused automated note generation solution, incorporating practitioner preferences and medical practices.
- Established robust CICD infrastructure utilizing AWS Amplify, Docker containers, and GitHub Actions, significantly improving deployment efficiency into early products lifecycle.
- Contributed next-generation iOS practitioner application using SwiftUI, expanding platform accessibility.
- Led integration of third-party vendor partnerships and developed internal tooling for customer success teams.
- Conducted technical interviews and mentored new engineering team members while maintaining code quality and managing technical debt.

Full-stack Developer, Student Worker at **USC Information Sciences Institute (ISI)**   *Marina Del Rey, CA, Nov 2019 - Jan 2020*

- Redesigned user interfaces for DeterLab cyber experimentation platform (DEW).
- Modernized core Python codebase by implementing RESTful architecture using Flask.

Software Development, Intern at **Oracle (China)**   *Beijing, China, Aug 2016*

- Enhanced authentication system for Oracle BI Liquidity Management Reporting System.
- Optimized database performance through SQL query refinement and duplicate entry management.

🛠 Open-source Project

Recipe Muse, */github*

- Developed LLM-powered recipe generator with personalized meal planning capabilities.
- Implemented text and image models switching architecture between OpenAI, Anthropic, DeepSeek, and Stability.ai.
- Built with Next.js SSR, Redis, SSE, Supabase and Firebase Realtime Database, featuring structured JSON model outputs and multi-language support.

s3db, */npm*

- Created database abstraction layer for AWS S3 with document-type storage capabilities.

use-tools, */npm*

- Developed collection of React hooks optimizing common development workflows.

COVID-statistics, */github*

- Built real-time COVID-19 dashboard using Nivo, Next.js, TypeScript, and Framer-motion.

Foldable Side Panel (Chrome extension), */github*

- Engineered React-based Chrome extension template with modern tech stack (Parcel, TypeScript, TailwindCSS).

✒ Publication

HCI 2017, A Highly Customizable Parent-Child Word-Learning Mobile Game for Chinese Children with Autism, *link*	*May 2017*
HCI 2016, "One Doesn't Fit All": A Comparative Study of Various Finger Gesture Interaction Methods, *link*	*Jun 2016*