

Cai Chen

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Experience

Associate Software Engineer

Aug 2025 – Present

Todd Agriscience

Remote

- Spearheading the rebuild of a failing production system from scratch using Next.js and TypeScript, eliminating critical technical debt and restoring stability after **1 month of downtime, decreasing build time by 33%**.
- Architecting scalable backend infrastructure using Clerk for authentication and Convex for data pipeline, establishing foundational systems to **support 20+ clients and \$100K+ in agriculture infrastructure**.
- Implemented CI/CD pipeline with GitHub Actions and Husky pre-commit hooks, **resolving a critical issue of 20+ monthly build failures** by replacing direct pushes to main with automated testing and deployment.
- **Onboarded 5+ engineering interns** to new codebase, resolving legacy bottlenecks where only 1 person could make changes and Windows users were blocked, resulting in a **4x increase in team efficiency**.

Software Engineering Intern

May 2025 – Aug 2025

Dwolla

Des Moines, Iowa

- Identified and resolved a prefetching bug during development that would have triggered Cloudflare IP bans using browser dev tools and log analysis, **preventing potential disruption for 1200+ users**.
- **Delivered 2 complete pages and 4 components** within the **first 4 weeks**, progressing from collaborative mob programming to independent feature development while maintaining code quality standards.
- Identified UI inconsistencies across multiple pages and components, developing universal and dynamic components that are **used in 30+ instances** throughout the entire codebase.
- Scoped, built, and tested **10+ new dashboard features** using TypeScript, Material UI, Next.js, Redux Toolkit, Scala, Jest, and Storybook, enhancing accessibility, speed, maintainability, and usability.
- Developed in an **Agile Scrum team** by refining technical, estimating effort in **Jira**, and writing production-ready code within 2-week sprint cycles.

Founder & Software Engineer

Feb 2025 – Present

Chardle.com – Daily Character Guessing Game

Remote

- Built and launched a full-stack web application using React.js, Vite, and Tailwind CSS with daily resets, data persistence, and reusable components, **driving 80,000+ monthly active users** and supporting 15+ franchises.
- **Generating 3 figures of monthly ad revenue** by establishing a partnership with ad-tech platform Venatus.
- Architected and migrated backend infrastructure to AWS (Lambda, API Gateway, CloudFront, DynamoDB, S3) using Express.js and Typescript, **reducing server costs by 90%** while enabling seamless scalability.
- Developed an AI-powered content automation pipeline using n8n workflows, ChatGPT integration, and Python scripts, containerized in Docker, **saving 2 hours per franchise**.

Technical Skills

Languages: TypeScript, JavaScript, Java, C, Python, Bash, HTML/CSS

Frameworks & Libraries: Next.js, React.js, Redux Toolkit, Express.js, Node.js, Spring Boot, Tailwind CSS, Material UI

Tools & Infrastructure: AWS (Lambda, API Gateway, CloudFront, DynamoDB, S3), Docker, Git, NoSQL, SQL, Jira, Linux

Projects

Czchen.dev – Windows 11 OS Portfolio Site

June 2025 – July 2025

Next.js, TypeScript, React, TailwindCSS, MongoDB, Node.js, OpenAI API, Spotify API

- Developed an interactive portfolio featuring responsive, draggable UI components and 10+ custom apps, integrating diverse APIs to build a **full-featured Spotify clone** and a context aware **AI chatbot**.

Education

Iowa State University

Expected Graduation: December 2026

Bachelor of Science in Computer Engineering

GPA: 3.4