

Cai Chen

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Education

Iowa State University

Bachelor of Science in Computer Engineering

Expected Graduation: December 2026

Ames, Iowa

Experience

Associate Software Engineer

Todd Agriscience

Aug 2025 – Present

Remote

- Spearheading the rebuild of a critical production system using Next.js, Express.js, TypeScript, and PostgreSQL, eliminating critical technical debt and creating scalable foundational systems to **support 20+ clients**.
- Implemented CI/CD pipeline with GitHub Actions and Husky hooks, **resolving a critical issue of 20+ monthly build failures** by replacing direct pushes to main with automated testing and deployment.
- **Led technical onboarding of 5+ engineering interns** to the new codebase, resolving legacy bottlenecks, enabling full cross-platform development, and **boosting team efficiency 4x**.

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**.
- Shipped production-ready pages and components within the **first 3 weeks**, transitioning quickly from collaborative mob programming to independent ownership while upholding 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 in a Scrum/Agile environment, enhancing accessibility, speed, maintainability, and usability.

Founder & Software Engineer

Feb 2025 – Present

Chardle.com – Daily Character Guessing Game

Remote

- Built and launched an indie full-stack web application using React.js, Vite, and Tailwind CSS with daily resets, data persistence, and reusable components, **driving 120,000+ monthly active users** and supporting 15+ franchises.
- Established a partnership with ad-tech platform Venatus, optimizing ad inventory and achieving a **120%+ increase in revenue** over Google AdSense.
- Architected and migrated backend infrastructure from Render/Vercel to AWS (Lambda, API Gateway, CloudFront, DynamoDB, S3), using Express.js and Typescript, **reducing 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**.

Projects

Gather Point – 2025 ISU Swan Hacks | Next.js, TypeScript, Google Cloud Platform (Maps, Gemini AI), Node-Geocoder, Cesium.js, Firebase

- Developed a full-stack community engagement platform that enables users to discover local events featuring an interactive 3-D globe visualization, AI-powered event discovery, real-time messaging, and social networking.

Campus Mind – 2025 Hack Midwest | Next.js, TypeScript, Python, FastAPI, MongoDB, Google Platform, AWS Strands

- Scoped and developed a Canvas companion app with auto-syncing courses and assignments to Google Calendar, automated AI study block creation, AI health checkins, AI guide creation, and vector search assignment finder.

Czchen.dev – OS Inspired Portfolio | Next.js, TypeScript, React, TailwindCSS, MongoDB, Node.js, OpenAI API, Spotify API

- Built an interactive portfolio with 10+ custom apps, including integration of RESTful APIs to create a fully functional Spotify clone (Spotify API) and a context-aware AI chatbot (OpenAI API).

Skills

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

Frameworks & Libraries: Next.js, React.js, Redux Toolkit, Express.js, Node.js, Spring Boot, Jest, Junit, MUI, Tailwind CSS

Tools & Infrastructure: AWS, Docker, MongoDB, PostgreSQL, Git, Github Actions, Gitlab, Jira, CI/CD, REST API, Linux, n8n