# **Erik Hein**

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#### **EDUCATION**

# San José State University

May 2025

Bachelor of Science, Computer Science

San José, CA

• Courses: Data Structures and Algorithms, Object-Oriented Design, Database Management System, Information Security, Machine Learning, Computer Vision, Mobile Device Development, Software Engineering, Programming Paradigms

# **WORK EXPERIENCE**

IDitor Inc. May 2024 – Present

Software Development Engineer

Cupertino, CA

- Architect an Al-powered social media app using **Flutter**, **Riverpod** (for state management), and **SQLite** (for offline support), enabling real-time sync and reducing interaction latency by 35% for 100+ beta users.
- Implement interactive 3D-like UI components applying Physics engines, resulting in boosted average session time by 20%.
- Construct modular, reusable Flutter widgets and animated UI elements to revamp responsiveness and visual consistency, setting the UI apart from competitors in the market.

Bridge Burma Aug 2023 – Nov 2024

Full-Stack Software Engineer & UI/UX Designer

Remote

- Built a proofreading submission platform using Next.js and Supabase, serving 100+ international students, streamlining review workflows and decreasing processing time by 40%.
- Designed intuitive UI/UX with **Figma**, contributing to **95**% positive feedback for usability and aesthetics.
- Collaborated in developing real-time submission and feedback flows, automating user interactions, and improving feedback efficiency by 30%.

# **PROJECTS**

# Trekteria: Al-Powered Outdoor Planning App - (https://www.trekteria.com/)

Feb 2024 - Present

- Led development of a full-stack **React Native/Expo** cross-platform mobile app, implementing advanced features including Al trail assistance and real-time weather tracking while maintaining modern, responsive UI.
- Engineered scalable back-stack architecture using Firebase and SQLite enabling seamless offline-first experience.
- Implemented eco-conscious features including smart trail recommendations, sustainable packing lists, and fun eco-missions leading to 30% increase in user engagement.

# SJ Snap: Al-Powered Civic Engagement Web App - (https://sjsnap.vercel.app)

**April 2025** 

- Led a team of 3 in developing a hackathon project, SJSnap, an Al-driven web app designed to simplify and accelerate the process of reporting city-related issues through the existing 311 system.
- Integrated an **AI-power verification** operating by Google's **Gemma3** model and **Next.js** to validate image-description consistency, ensuring more reliable civic issue reports during a **24-hour hackathon**.
- Engineered secure report storage with Supabase, providing granular **privacy controls** (public/private) fostered user trust and encouraged broader civic engagement by making users comfortable sharing sensitive data.

# Zen Board: Al Scheduler - (https://zenboardai.vercel.app/)

Sep 2024

- Deployed a full-stack smart scheduling tool with Al-driven task optimization, leveraging Next.js and Supabase to deliver personalized, real-time schedule generation for improved focus.
- Integrated a generative AI for automated schedule optimization, revamping daily task efficiency by 50%.

# Type In Zen - (https://typeinzen.vercel.app/)

**Apr 2024** 

- Developed a narrative-driven typing game in ReactJS combines Al-generated storylines with calming visuals and audio to reduce user stress and enhance focus.
- Earned 93% positive user feedback on the intuitive and engaging design of the application.
- Implemented custom animations to provide a smooth user experience that improves typing accuracy.

### **SKILLS**

• **Skills**: Java, C++, Python, Flutter, React Native, JavaScript, TypeScript, HTML, CSS, React, Node.js, Next.js, SQL, Supabase, Tailwind, JavaFX, Arduino, Scikit-learn, Tensor Flow, Figma, Adobe XD, Rive, Git, Matter.js, Docker, GCP