Alex Straight

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Profile

As a third-year Computer Science major at San Diego State University, I've developed a keen interest in web development, particularly in React and Next.js. My aim is to create user-friendly, efficient web applications, staying abreast of the latest industry trends. For me, web development is not just about coding; it's about creatively solving problems and achieving meaningful impact in my work and personal projects.

Experience

RESEARCH ASSISTANT, SAN DIEGO STATE UNIVERSITY – JUN 2023 - AUG 2023

- Pioneered a study on optimizing NOMA systems using Reconfigurable Intelligent Surfaces (RIS).

- Developed Python algorithms for RIS-enhanced NOMA environments, improving channel capacity.

SOFTWARE ENGINEER, NOTE GENIUS – JUL 2023 - PRESENT

- Developed an AI-powered note-taking app with features like tagging, searching, and GPT-4 integration.

- This project, designed for math assistance, leverages Wolfram Alpha's API for solutions and GPT for detailed explanations. I'm refining a model that encompasses a broad range of mathematics, from algebra to number theory.

Projects

PATHFINDING VISUALIZER

- Pathfinding algorithm visualizer featuring, A*, Dijkstra's, Best-first Search, Breadth-first Search, Depth-first Search, Beam Search, Jump Point Search, Theta*.

- Technologies: TypeScript, React, and Tailwind CSS, deployed using Vercel.

NOTE GENIUS

- AI powered application specialized for solving math problems, providing explanations, with formatting and exporting. Using tesseract to parse text from images.

- Technologies: Next.js, React, TypeScript, Prisma, MySQL, Planet Scale, GPT api, Wolfram Alpha api.

Education

San Diego State University – B.S. in Computer Science, Expected 2025

Skills

Next.js, JavaScript, React.js, TypeScript, Prisma ORM, Next Auth, OAuth, Attention to Detail, Tailwind CSS, HTML5

Personal Portfolio