

Personal Portfolio

Alex Straight

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Career Objective

What I enjoy most about web development is being able to combine creativity and engineering principles, 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.

Skills

Next.js, TypeScript, React.js, Prisma ORM, Next Auth, OAuth, Tailwind CSS, HTML5

Education

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

Research Experience

STEM PATHWAYS SCHOLAR, SAN DIEGO STATE UNIVERSITY — JUNE 2023 - AUG 2023 \$4,000 stipend

- 1 of 11 scholars selected to participate in a mentor transfer pathway program.
- Pioneered a study on optimizing NOMA systems using Reconfigurable Intelligent Surfaces (RIS).
- Developed Python algorithms for RIS-enhanced NOMA environments, improving channel capacity.
- Presented "Reconfigurable Intelligent Surfaces" at SACNAS National Conference-October 2023

Professional Experience

- Working with one of my professors to develop her website for her Data Structures and Algorithms Course - (Present)

Self-Developed Projects

PATHFINDING VISUALIZER

- Pathfinding algorithm visualizer featuring, A*, Dijkstra's, Best-first Search, Breadth-first Search, Depth-first Search, Beam Search, Jump Point Search, and Theta*.
- Technologies: TypeScript, React, and Tailwind CSS, deployed using Vercel.

MATH BASE

- AI powered application specialized for solving math problems, providing explanations, with formatting and exporting. Using tesseraact to parse text from images.
- Technologies: Next.js, React, TypeScript, Prisma, Supabase, GPT API, Wolfram Alpha API.