Akhil Trivedi

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SKILLS

Programming Languages: C, Java, Javascript, Typescript, Python
Front-End Web Development: HTML, CSS, Tailwind, React, NextJS CSR
Back-End Web Development: NextJS SSR, NodeJS, SQL, API, Git, MongoDB, Prisma
Web Design: Figma, Photoshop, Illustrator, Inkscape

EXPERIENCE

2020-2024 · DESIGN4U [View Website] [Source Code]
Administrator

- Developed platform integrated application with **Discord.js** to streamline order processing, logging, moderation, and customer communication, improving **10-12 hours** order response time to **under 5 seconds**.
- Implemented gamified experience to community and designer to incentivize designing and **boosting engagement by 139%**.
- Redesigned order placement system allowing designers more opportunity and clients freedom to choose their designers, leading to increase in order **conversion rate** from **3 to 7 per week.**
- Led the team of 5 members responsible for **recruiting applicants** for graphic designer, order overseer and community moderator roles.
- Crafted website based on **Next.js** and **Firebase**, showcasing designer works and client testimonials, resulting in a **43% increase** in order traffic.
- Connected with the organisation's server using Discord.js to stream 7 real-time **KPIs**, including client feedback and order count.

PROJECTS

REQU AI
Prompt To Code in Seconds

- Built app in **Next.js 14**, generating simple websites **5X Faster** using **Groq** API's LPU for super-fast model processing like **Gemini, Mistral, GPT-Turbo**.
- Implemented a group of **3 AI** to generate approaches, tasks and code for the prompt using different models.
- Formulated backend functions to property format model inputs and outputs to process response.
- Developed real-time code preview using **PrismJS** and website preview using **iFrame** during code generation with an update cycle of 200ms.
- Constructed **API** to manage **backend file system** to allow app to save source files of project on server and process them for rendering and downloading.

TOURNEY4U [Source Code] [Demo]
Customizable Tournament Scheduler

- Created a **Next.js** web app that streamlines tournament bracket generation for various team sizes from 2 to 20, including byes for odd teams.
- Empowered user customization with extensive options for visual style, 4 different layouts, colour schemes, and borders.
- Defined a **On-Demand font impor**t system, fetching user-specified fonts from **Google Fonts** on demand for a personalised user experience.
- Enhanced user experience with real-time bracket updates and downloadable **PNG exports** for sharing and printing.
- Prioritised **mobile responsivenes**s by optimising layout for landscape viewing on smartphones.

DENCODER
Multi-Radix Steganographic Tool

- Composed a **steganographic tool** using **Node.js** and **Canvas** to embed 3 layered hidden information within image pixel data.
- Engineered **radix-based** encoding (2-10+), increasing data capacity (up to **1 million characters** in a 512x512 PNG with radix 16) while balancing visual imperceptibility.
- Enabled password protection for encoded data using **SHA-256** hashing for enhanced security.
- Incorporated error correction through data redundancy within the image, ensuring data recovery in case of minor image corruption.

EDUCATION

2022-2026 · BABU BANARASI DAS UNIVERSITY SGPA: 9/10
Bachelors in Technology - Computer Science Engineering

2021-2022 · CITY MONTESSORI SCHOOL Percentage: 94.80%
Intermediate