

# Yashwanth Venkatesan

## Full Stack Developer

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Lexington, Kentucky USA | Github: <https://github.com/tigeryash>

### PROFESSIONAL SUMMARY

Full Stack Developer with 2+ years of hands-on experience building modern React/Next.js applications in collaborative, agile environments. Specialized in implementing complex authentication flows, real-time data integrations, and interactive 3D experiences. Proven ability to lead technical decisions, mentor teammates, and deliver production-quality code with a focus on developer experience and scalable architecture.

### TECHNICAL SKILLS

**Frontend:** HTML, CSS, JavaScript (ES6+), TypeScript, React.js, Next.js 16, React Router, Vite, Tanstack Start

**Styling & Animation:** Tailwind CSS, Shadcn UI, Framer Motion, GSAP

**State Management:** Redux Toolkit, Context API, Zustand

**3D/Graphics:** Three.js, React Three Fiber (R3F), WebGL, GLSL, Blender

**Backend & Database:** Convex, Firebase, Supabase, Appwrite, Prisma ORM, PostgreSQL

**Auth & Payments:** Better Auth, Auth.js, Clerk, Stripe

**Data Fetching:** TanStack Query, SWR, Axios, Fetch API

**Testing & Validation:** Jest, React Testing Library, Zod, React Hook Form

**AI/ML Integration:** Vercel AI SDK, Prompt Engineering

**Mobile:** React Native, Expo

**Tools & Workflow:** Git/GitHub, VSCode, Linux CLI, Bun

### TECHNICAL EXPERIENCE

#### Paleto Bay GTA 5 Roleplay Server – Frontend UI Engineer | Alpha Development

Jan 2023 - Feb 2025

*Technologies:* React, TypeScript, MobX, Framer Motion, PostgreSQL, RAGE MP API

Contributed to alpha development of roleplay server UIs for a 500+ member community, building production-intent interfaces with game engine integration.

- **Built functional Gas Station interface:** Implemented React components integrated with RAGE MP commands to read real-time vehicle fuel data and trigger in-game refueling actions
- **Created context-aware UI system:** Developed custom React hook to automatically display Gas Station interface when players approached any pump location across the entire game map
- **Designed core UI components:** Built login screen and multiple HUD elements with Framer Motion animations, adhering to shared design system for visual consistency
- **Established local development environment:** Configured PostgreSQL database locally for end-to-end testing of frontend-game integrations and rapid iteration
- **Collaborated in small team:** Worked with 1 frontend and 2 backend developers; proposed UI/UX solutions using AI tools (v0, Bolt), justified library choices, and incorporated feedback into implementation
- **Maintained code quality:** Conducted code reviews emphasizing clean React patterns and idiomatic code; recognized by team for development speed and reliability

#### Chingu – Frontend Developer | Remote

(6-week Agile Sprints) | 2023 – 2025 (Remote)

*Technologies:* Next.js, TypeScript, React Hook Form, Zod, Mapbox, GitHub Projects, Discord, Atlassian

Led frontend development across 3 collaborative voyages with cross-functional teams of 6–8 developers using Scrum methodology, daily standups, GitHub Projects Kanban, and ticket-based workflows.

- **Key Project:** Solar Panel Installation Platform (California-focused)
- **Architected authentication system:** Designed and implemented responsive login UI and multi-step signup flow using React Hook Form + Zod for comprehensive validation and error handling
- **Built admin/worker dashboard:** Created responsive data visualization interfaces and management views using Next.js App Router and TypeScript
- **Integrated Mapbox routing API:** Collaborated with backend developer to implement optimal multi-stop route calculation with return-to-origin logic, enabling efficient field operations
- **Technical leadership:** Set up project structure, established coding standards, conducted code reviews, merged 30+ PRs, and mentored teammates on React patterns, form validation, and component architecture
- **Bridged frontend-backend collaboration:** Worked closely with backend team to define API contracts and data structures, ensuring seamless integration

### PROJECTS

#### Generative AI Chat Platform (In Progress – Flagship Project)

[Site](#) | [Github](#)

*Tech:* Next.js 16 (App Router), TypeScript, Bun, Convex, Better Auth, Vercel AI SDK, Zod, React Hook Form, Tailwind CSS, Shadcn UI, Zustand, GSAP, Three.js/GLSL, Vercel

Building a production-ready, full-stack AI chat platform allowing users to bring their own API keys to interact with multiple concurrent AI models in a single conversation.

**Key Features:**

- **Multi-model conversations:** Supports side-by-side responses from multiple AI providers (OpenAI, Anthropic, etc.) with ability to add/remove models dynamically
- **Advanced authentication:** Implementing Better Auth with multiple OAuth providers, secure session management, and protected route patterns
- **Real-time data architecture:** Using Convex for strongly-typed, real-time data synchronization across conversations, user settings, and model configurations
- **Robust form handling:** Applying Zod + React Hook Form for strict input validation, comprehensive error handling, and seamless form UX
- **Production-quality UX:** Streaming responses with Vercel AI SDK, command-style interactions, fully responsive layout, subtle GSAP animations, and secure API key storage
- **3D visual accents:** Integrating Three.js/GLSL shaders for modern, interactive design elements

#### React Three Fiber 3D Portfolio (Interactive World)

[Site](#) | [Github](#)

*Tech:* React Three Fiber (R3F), Drei, Rapier, GLSL, Blender, Vite, Bun, TypeScript, Tailwind CSS

Built an explorable 3D world serving as an interactive portfolio, demonstrating advanced Three.js and 3D modeling capabilities.

**Technical Highlights:**

- **Custom 3D assets:** Designed and modeled all 3D elements from scratch in Blender, optimized for web performance
- **Character controller:** Implemented physics-based character movement using Rapier physics engine with smooth controls
- **Interactive project displays:** Created clickable billboard system that triggers modals with project details and external links, transforming portfolio into playable experience
- **Performance optimization:** Integrated physics, UI overlays, and animations within performant 3D scene maintaining 60fps

### EDUCATION

#### University of Kentucky | Bachelor of Information Communication Technology Minor in Computer Science

### CERTIFICATIONS

Advanced React - Scrimba | November 2022

Professional React & Next.js 14 Course - ByteGrad | March 2024

Three.js Journey - February 2025