Yashwanth Venkatesan
Full Stack Developer

Email: *yashwanth.venkatesan@gmail.com* | **Phone**: (+1) 859-913-6936 | **Portfolio**: *yashwanthvenkatesan.com*
Lexington, Kentucky USA | **Github**: *https://github.com/tigeryash*

PROFESSIONAL SUMMARY
Full Stack Developer with 4+ 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. Can develop with the leading AI agents and models.

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, Three Shading Language
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, Vitest, Playwright, Zod, React Hook Form
AI/ML Integration: Vercel AI SDK
Mobile: React Native, Expo
Tools & Workflow: Git/GitHub, VSCode, Linux CLI, Bun
AI Development Tools: Cursor, Windsurf, Kilocode, VSCode (with AI extensions), MCP, Claude Code, rules-based context management, task decomposition/planning workflows

TECHNICAL EXPERIENCE
Paleto Bay GTA 5 Roleplay Server – Frontend UI Engineer | Alpha Development   *Jan 2022 - 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; leveraged AI prototyping tools (v0, Bolt) to rapidly validate UI/UX concepts before implementation, 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   *2023 – Present (Remote)*
Technologies: Next.js, TypeScript, React Hook Form, Zod, Mapbox, GitHub Projects, Discord, Atlassian
Led frontend development across projects of 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   Site | Github

PROJECTS
Generative AI Chat Platform (In Progress – Flagship Project)
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   Site | Github
- **3D visual accents:** Integrating Three.js/GLSL shaders for modern, interactive design elements

React Three Fiber 3D Portfolio (Interactive World)
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 2021*
Three.js Journey – *February 2025*