

AKHILESH RANGANI

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Experienced in AI, full-stack development, and cloud technologies with a strong background in designing high-performance systems and optimizing development workflows. Proficient in Next.js, React.js, Node.js, and various cloud platforms. Known for a collaborative approach and leadership in end-to-end project execution. Demonstrated innovation and problem-solving skills, with a track record of driving continuous improvements and delivering scalable solutions in dynamic environments.

EDUCATION

The George Washington University, School of Engineering and Applied Sciences, Washington, DC

Dec 2025

Master of Science, Computer Science

GPA: 3.67

TECH STACK

Programming: Java, Python, SQL, C, C++, HTML, CSS, TypeScript, JavaScript, PHP, Dart

Frameworks: Next.js, Vue.js, Express.js, Node.js, Flutter, Svelte, Streamlit

Tools: GIT, MySQL, Docker, Kubernetes, MongoDB, Excel, Prisma, Figma, E2B, Dokku, Postman, WordPress, Linode, Sentry

Platforms Services: Azure Cloud, AWS, GitHub, Cloudflare, Vercel, Supabase, Firebase, GCP, Heroku, DigitalOcean

Libraries: React.js, zod, Redux, Axios, NextAuth.js, Clerk

Core: Project Management, Agile Software Development, Generative AI, Version Control

PROFESSIONAL EXPERIENCE

The George Washington University : Research Assistant in AI | Washington, DC

May 2024 - Present

- Designed a high-performance **AI chatbot** integrated with **WordPress**, using **Next.js**, **Zod**, **Prisma**, **shadcn UI**, **NextAuth.js**, and **Nginx** on **Linode VPS**. Handles **~5k daily requests**, with data managed by **Supabase** and **Vercel Blob**, notifications via **Resend**.
- Implemented **CI/CD pipeline** using **GitHub Actions**, optimizing development workflow and deployment of chatbot and dashboard updates, configured system security through **UFW firewall** and enabled user-specific **OpenAI API key** integration
- Developed a **full-stack open-access textbook** with **Next.js dashboard**, used **PM2 process manager** for optimal performance, resulting in an **AI-powered educational platform**, custom authentication, and flexible **OpenAI API** utilization

GitWit.dev : Software Engineer | Apprenticeship | San Francisco Bay Area, Remote

Apr 2024 - Present

- Optimized the **GitWit Client**, a React web-app, by integrating **Firebase** for backend, **OpenAI** for code generation, and **Clerk** for authentication. Used **Vercel** for deployment, resulting in a smoother user experience and optimized code generation speed.
- Built **ReactEval**, a **ReactJS Codegen Evaluation Framework** using **E2B**, to process user prompts and analyze output, leading to **40% improved testing efficiency** and **25% reduced debugging time** via automated error and screenshot capture.
- Architected the **GitWit Codegen Server** using **ExpressJS** and **Node.js**, developing an **API endpoint** for **real-time code modification** and **dependency resolution**, improving code processing speed by **25%**.
- Incorporated **Sandpack** from **CodeSandbox** for a **web-based code editor**. Used **Cloudflare Workers** for scalable backend, boosting **real-time code editing performance by 30%**. Used **Docker** for consistent deployment across environments.

Triclone Technologies Private Limited : Co-Founder and Software Engineer | Gujarat, India

Jul 2022 - May 2023

- Designed a **CRM system** using **React.js**, **Node.js**, and **Firebase**, enhancing field service efficiency. Built scalable web and mobile apps with **Next.js**, **Flutter**, and **Express.js**, achieving faster response times with a **GraphQL API** and **MongoDB**.
- Led a team of 5, implementing **Agile** methodologies, **DevOps**, **Git**, and **CI/CD**, reducing SaaS deployment time by **25%**. Improved performance and scalability with **AWS**, **Azure**, and **serverless functions** for microservices.
- Optimized cloud infrastructure with **auto-scaling** and **container orchestration** using **Kubernetes** and **Docker**, integrating **Sentry** for real-time error tracking. Enhanced resource management and reduced costs through performance tuning.

PROJECTS

[Sandbox](#): Full-Stack Developer (Open-Source Cloud IDE)

May 2024

- Created an **open-source cloud IDE** with **live collaboration** and **one-click full-stack app deployment**, using **Next.js**, **TailwindCSS**, and **Shadcn UI** for the frontend, integrating **Monaco** editor and **Liveblocks** for real-time collaborative editing.
- Engineered the backend using **Cloudflare Workers** with **D1 database** and **R2 storage**, an **Express** and **Socket.io** server for real-time features, and **E2B** for Linux sandboxes, enabling features like custom AI code completion and live preview functionality.

[Dress-up](#): Frontend Engineer (AI-Powered Fashion Assistance)

May 2024

- Engineered DressUp, an AI-driven styling app using **Next.js 14** and **TypeScript**, leveraging machine learning algorithms to generate personalized fashion recommendations and vector graphics visualizations.
- Built a full-stack app with **NextAuth.js**, **Postgres**, utilizing **RESTful APIs** and **serverless deployment** on **Vercel** with analytics.

[Krubu](#): Mobile App Developer (AI Assistant)

Jan 2024

- Made Kruba, a conversational AI app using **Flutter** and **Dart** with **OpenAI API**. Created an intuitive UI, embedded utilities like The Storyteller and Legal Advisor, and implemented **speech-to-text/text-to-speech** using **Google Cloud API**.
- Utilized **Firebase** for real-time data storage and synchronization, **Provider** for state management, and various **Dart packages** to enhance app functionality and performance, ensuring seamless user interaction and data handling.