# AVINASH ACHARYA

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#### Education

JSSATEB (CGPA: 8)

Bachelor of Technology in Computer Science

PES (Perc: 90)

PCMC

Sep. 2022 - May. 2026

Bangalore, Karnataka

Sep. 2020 - May. 2022

Bangalore, Karnataka

### Technical Skills

Languages: JavaScript, TypeScript, Go, Python, Shell Scripting, Java, C, C++, HTML/CSS

Frameworks/Technologies: Next.js, React.js, Node.js, Express.js, Mux (Go), Docker, Kubernetes, MongoDB,

PostgreSQL, Prisma, Drizzle, Tailwind CSS, T3 Stack

Developer Tools: Git, GitHub, VS Code, GitHub Actions, Docker Compose

**DevOps/Cloud**: AWS, CI/CD, Observability (OpenTelemetry)

AI: Retrieval-Augmented Generation, ChatBot, Ollama

# Experience

#### Grameen National Hackathon

Certificate Link

National-Level Finalist

- Developed a geospatial web application using Next.js and Leaflet.js to plot local business correspondent locations and display detailed business data.
- Optimized performance by implementing marker clustering, significantly reducing client-side rendering overhead for better scalability.
- Qualified through the South Zone Hackathon and advanced to the national finals, where the project was presented to industry experts.

#### Google Gen AI Exchange Hackathon

Certificate Link

National-Level Finalist

- Built Arishtha, a prototype browser tailored for children's safe browsing, featuring a homemade page-rendering engine using custom scraping instead of Chromium.
- Competed solo against experienced multi-member teams; one of five projects selected for finals in the theme, pitching the product to VCs and Google judges.
- Received finalist recognition and Google swag; gained exposure to real-world pitching, feedback loops, and product-market fit strategies.

#### Projects

Arishtha - A Browser for Kids | Python, Gradio, Multi-threading, flask, transformers, nvidia, gemini, gradio

- Developed a prototype for a browser specifically designed for kids with **built-in content moderation**
- Created a homemade alternative to a rendering engine that scraped page content instead of rendering, necessary due to laptop memory/storage limitations.
- Focused heavily on content moderation, filtering out inappropriate content like NSFW/NSFL images or text and replacing them with positive alternatives.
- Integrated multiple AI models and optimised performance by making inference calls in parallel using multi-threading .
- Addresses a market gap, as there is no existing product quite like it tailored for kids with serious content filtering despite one in three internet users being under 18.
- Built a functional prototype in approximately one month, largely during an NVIDIA Hackathon, working solo
- The project has been **open-sourced** on GitHub and video demonstrations are available.

## FeedItBack | Python (Flask), Next.js, TypeScript, OpenAI, TiDB, RAG, Ollama

- Developed an AI-powered RAG (Retrieval-Augmented Generation) web application for automated feedback collection and intelligent report generation.
- Leveraged OpenAI models with custom RAG pipelines to generate actionable business insights and feedback.
- Integrated scalable storage using TiDB and deployed efficient LLM inference with Ollama for local model serving.

## Grameen Viz | Next.js, TypeScript, Tailwind CSS, Leaflet.js

- Built a geospatial visualization tool to map and manage local business correspondents for the Grameen National Hackathon.
- Implemented marker clustering and dynamic zoom handling to enhance client-side performance and map scalability.
- Enabled interactive marker popups displaying business details like contact information, services offered, and operational hours.
- Designed a fully responsive UI, ensuring seamless performance across devices.

# CalCGP | Next.js, TypeScript, Tailwind CSS

- Created a dynamic SGPA calculator adaptable for any semester, subject combination, and credit system.
- Designed an intuitive UI for adding/removing subjects, entering grades, and real-time SGPA calculation.
- Optimized for user experience, enabling immediate feedback and flexibility in academic grading systems.

#### **MeMo** | Golang (Mux), Next.js, TypeScript, Tailwind CSS, PostgreSQL

- Built a full-stack note-taking web application supporting CRUD operations for organized information management.
- Designed with a responsive layout to ensure seamless access across both desktop and mobile platforms.
- Integrated PostgreSQL as the backend datastore to enable efficient and reliable note storage.