

Sahil Gathe

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EDUCATION

University of California San Diego,
Bachelor of Science in Computer Science

La Jolla, CA
Sept. 2021 – June 2025

EXPERIENCE

Doceo

Fullstack Software Engineer

Aug. 2025 – Present

Chattanooga, TN

- Delivered a 0 → 1 MVP of an AI-powered construction analytics tool, by building a **React + Tailwind** UI creating card components from streamed JSON responses generated by a LLM backend via **REST APIs**, and syncing state with Convex (real-time database).
- Built authentication and user-management infrastructure, enabling simplified org onboarding and automated Procure and Autodesk data ingest, by integrating **WorkOS SSO**, and **OAuth 2.0** pipelines for data sync.

UC San Diego Center for Energy Research

Student Software Engineer

Jan. 2025 – June 2025

San Diego, CA

- Shipped a cross-platform climate impact visualization app enabling users to adjust renewable energy resources by region and visualize projected global temperature delta, adopted by the UCSD Center for Energy research, as a tool to showcasing new research, by developing an interactive frontend in **React Native**, and integrating **MongoDB** backend via REST APIs.

Qualcomm Institute Center for Health Design

Software Engineering Intern

July 2024 – Dec. 2024

San Diego, CA

- Engineered an AI-driven AR interaction system, showcased at the San Diego World Design Conference 2025, enabling voice controlled 3D-avatar movement and web window management, by building a JSON parser to route LLM tool-calling outputs to trigger **Unity** function via **API endpoints**.
- Improved LLM function-calling accuracy from 70% to 85% on a standardized set of 50 commands for Unity functions tool-calling by implementing a dynamic tool registry in **MongoDB** and function embeddings in **Qdrant**, enabling semantic search for available Unity functions per scene.

CLUBS

Design Co

Web Developer & Board Member

Feb. 2024 – June 2025

San Diego, CA

- Developed and launched 4 websites for career fairs and design-a-thons which reached 500+ students and featured recruiters from Google, Epic and Deloitte by collaborating with an interdisciplinary team of designer, marketers, and developers using frontend frameworks, **React (Vite and Next.js)**, **Tailwind**, and **Vercel** for deployment.
- Organized and led 5 technical workshops on web development fundamentals, creative coding, and introductory game design using the **Godot** game engine, teaching 100+ students.

PROJECTS

GMTK Game Jam : Perpetua | *Godot, GDScript*

Aug. 2025

- Design and developed a game for the GMTK game jam in 96 hours with a team of 3, landing in the top 10% of rankings out of 9643 entries. Developed using the **Godot** game engine to, and BlockBench and Procreate to design 3D assets.

OpenGL Graphical Ray Tracing | *OpenGL, C++*

Feb. 2023

- Built a graphics rendering pipeline with recursive raytracing to render 3D scenes with over 1000 geometries, using **OpenGL**, implemented Blinn-Phong shading, ray-surface interactions, and a bounding box acceleration model.

TECHNICAL SKILLS

Languages: JavaScript/Typescript, Python, CSS, HTML, C#, Java, C, C++,

Frameworks: React, OpenXR, OpenGL, React Native

Developer Technologies: Git, Docker, MongoDB, VS Code, Unity, Godot, Node.js, express.js, Next.js, Generative AI