

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

UC San Diego Center for Energy Research

Oct. 2024 – Apr. 2025

Student Software Engineer

San Diego, CA

- Shipped an educational **web, IOS and android** application to visualize green energy data using the **React Native Framework** massing over 100 downloads.
- Utilized a database with 10,000 points of climate and energy data and programmed an API which enabled our application to do real time data visualization.

Center for Health Design

July 2024 – Dec 2024

Software Engineering Intern

San Diego, CA

- Developed software for the LifeSaver project integrating medical devices with AR overlays into a environment using **Unity** and the **OpenXR SDK**.
- Collaborated with mechanical engineers and UX designers to develop AR interactions with the physical product using **Unity**.
- Developed **Node.js** backend infrastructure enabling AI to control Unity functions and AR environments through JSON-based API communication for the LifeSaver platform. Enabling AI lead AR interactions with future scalability.

CLUBS

Design Co

Feb. 2024 – June 2025

Web Developer & Board Member

San Diego, CA

- Program Managed the DCo Up-Grade Summer Internship program, managing and connecting 42 designers & developers with 6 non-profit organizations.
- Collaborated with a team of designers and developers, and presented free design workshops to prepare young professionals and undergraduate students for design and engineering careers.
- Developed social media management internal tools using **React & MongoDB** to allow the marketing team to pre-schedule social media posts.
- Engineered four interactive websites for large scale Design Co events using **react, typescript, scss** and **Vercel**.

PROJECTS

VR Flight Simulator | *Unity, C#, OpenXR SDK*

March 2024

- Utilized Unity, and C# to build a flight simulator which allowed players to create custom point-to-point tracks in VR and race to set lap times.
- Ported the application to Windows, and stand-alone VR through the Meta Quest.

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

Feb 2024

- Programmed an application which rendered ray traced geometry from a text file using the OpenGL library
- Implemented a bounding box acceleration structure to improve rendering times by 2x

Pantry Pal App Development | *JavaFX, Whisper API, OpenAI API, DALLE API*

June 2023

- Developed with a team of 6 an AI recipe generation app
- Integrated agile development practices using Github projects to ensure an organized process.

TECHNICAL SKILLS

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

Frameworks: React, WordPress, MRSDK, OpenXR, React Native

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

Completed: Advanced Data Structures, Systems Programming, Software Tools, Low level programming languages, Statistics, Agile Development, Discrete Math and Algorithms, Computer Graphics, 3D Design and Interaction, Software Security