Sahil Gathe

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EDUCATION

University of California San Diego, — La Jolla, CA
Bachelor of Science in Computer Science — *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 our 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.

Design Co — Feb. 2024 – Present
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** & **MonogDB** to allow the marketing team to pre-schedule social media posts.

PROJECTS

Design Co Websites | *React, Scss Typescript, Vercel* — Feb. 2024
- Engineered four interactive websites for large scale Design Co events using react, typescript, scss and Vercel.
- Engaged with a design team to refine and implement complex design elements, ensuring a smooth and responsive user interface.

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 form 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 Compeleted:**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