

Aditi Thanekar

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Education

University of California - San Diego

MS in Computer Science

La Jolla, California

September 2025 - December 2026

University of California - Riverside

BS in Computer Science, GPA: 3.76 / 4.0

Riverside, California

September 2022 - June 2025

Experiences

Lawrence Livermore National Laboratory

Computing Intern | NIF

Livermore, California

June 2024 - Present

- Developed new component with C++ to group existing laser simulation components, reducing Qt cold start time 30%
- Enabled reuse of component chains across simulations reducing pipeline creation by 60%
- Worked closely with physicists to ensure the software met their functional requirements and scientific specifications
- Wrote documentation and training materials in LaTeX for users to learn to use new component
- Led live user training for ~20 people, addressing technical questions, and provided hands-on guidance

University of California, Riverside

Undergraduate Researcher - GPU Computing | Advisor: Daniel Wong

Riverside, California

January 2025 - June 2025

- Ported MiniFE, an open-source finite element analysis code, from CUDA to AMD HIP for compatibility across GPUs
- Used cuda-gdb and rocdbg to trace and resolve memory errors, including segmentation faults and race conditions
- Investigated warp divergence and memory coalescing inefficiencies through profiling tools (nvprof, rocprof)

University of California, Riverside

Chief Grader | Data Structures and Algorithms - Professor Patrick Miller

Riverside, California

April 2023 - June 2025

- Managed gradebook for 1000+ students, and directed tasks amongst 12 people ensuring timely release of grades
- Reduced input time from 1 hr to 7 min/assignment, by creating Python program mapping scores to Canvas gradebook
- Held 4 hours of weekly in-person demos/code reviews to assess student's understanding
- Conducted over 200 C++ code reviews, grading on readability, efficiency, memory usage and best practices

Projects

Noa | Flutter, Firebase, EmailJS, Git, Github

devpost.com/software/noa-42yenr

- Created iOS/Android mobile app to locate nearby businesses, schedule appointments, and send email confirmation
- Secured the login using Firebase Auth, and used current location to find businesses within preference filters

Packaroo Express | Python, Tkinter

github.com/aditithanekar/packarooExpress

- Devised solution to minimize crane movement for loading, unloading, and balancing containers at a port using A* search
- Developed and integrated a Python backend with a Tkinter GUI for interactive container operations with visualizations

Ray Tracer | C++, Valgrind, GDB

- Implemented ray tracer able to intersect spheres, planes and triangle meshes in 3D plane and render to a 2D image
- Integrated multiple shaders: flat, Phong(diffuse, specular, ambient), reflective, transparent, and texture mapping

My Favorite Story | C++, Git, Github, Valgrind, GTest

github.com/aditithanekar/My-Favorite-Story

- Implemented classes & tests for a choose your adventure game with horror and rom-com themes, debugged with Valgrind
- Hosted scrum meetings, completed sprints each week, and delegated tasks on a Kanban board with a team of 4

Leadership

Girls Who Code

President/ WHS Hackathon Director

Fremont, California

August 2020 - June 2022

- Created 9 lesson plans and taught web development at meetings to over 25 members using HTML, CSS and Figma
- Organized and emceed a school-wide hackathon for online(2021) and in-person(2022) and mentored groups

Washington High School Husky Band

Marching Band Drum Captain/ Wind Ensemble Percussion Section Leader

Fremont, California

August 2018 - June 2022

Technical Skills

Languages: C++, Python, Java, CUDA, HIP, HTML, CSS, R, Swift, Flutter,

Developer Tools: Git, Github, VSCode, GTest, Firebase

Design Tools: Adobe Illustrator, Figma, SolidWorks, Autodesk Maya

Relevant Coursework: Parallel Programming, GPU Programming, Computer Graphics, Computer Architecture, AI