Anya Agarwal

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Education

University of California, Berkeley **May 2025**

B.A. Computer Science, Certificate in Design Innovation **GPA: 3.85**

- Relevant Courses: Data Structures, Algorithms, Computer Graphics, Signals and Systems, Linear Algebra and Differential Equations, Operating Systems, Computer Architecture, User Interfaces, Probability for Data Science, Principles and Techniques of Data Science, Prototyping and Fabrication, Design Methodology

Skills

Python, Java, C, C++, Rust, Pandas, SQL, Numpy, HTML, Javascript, Typescript, Tailwind CSS, React.js, Adobe Photoshop & After Effects, Autodesk Maya, Figma

Experience

LearnQ.ai **June 2023 - August 2023**

Fullstack Software Engineer Intern

- Implemented complete UI for new AI chatbot feature and menu page using React Typescript and Tailwind CSS.
- Generated several AI chatbot modes using LangChain and OpenAI, and trained them on varying knowledge bases.
- Designed framework for the chatbot to handle connections between frontend and backend modules.

Berkeley Data Science Department **June 2023 - Present**

Undergraduate Student Instructor for Data 8: Intro to Data Science and Data 100: Advanced Data Science Topics

- Taught weekly discussion section (20+ students) to review lecture content, walk through a discussion-based problem set.
- Held tutor sections and office hours to guide students through data science topics and answer conceptual questions.
- Managed course infrastructure — used GitHub to upload assignments, and debugged students' JupyterHub code issues.

Computer Science Mentors **September 2022 - Present**

Coordinator for CS 88: Introductory Computer Science Course

- Created and reviewed weekly content on recursion, trees, and linked lists used by over 150 students.
- Managed over 30 mentors and tutoring sections by facilitating interviews, weekly meetings, and teaching workshops.
- Wrote problems, created slideshows, and led review sessions for course midterm, helping 60+ students with tricky topics.

Projects

Cloth Simulator **April 2024**

- Utilized mass and spring system to create a cloth simulation and its corresponding collisions with other objects.
- Created Blinn-Phong, bump, displacement, texture, and other shaders for the cloth using the OpenGL API.

Pathtracer **March 2024**

- Used bounding volume hierarchy algorithm to accelerate ray intersections with triangles and spheres.
- Rendered images using global illumination (direct/indirect lighting), and optimized using Monte Carlo probability.

WordNet Interface **October 2022**

- Used Java to describe semantic relationship between hypernym and hyponym words by parsing through an inputted file.
- Created new Graph class with appropriate methods to map words, and formulated several test cases for debugging.

Honors/Awards

Grace Hopper Celebration Student Scholarship **June 2023**

- Scholarship for women and non-binary undergraduates to attend the Grace Hopper Celebration and participate in various networking and skill building workshops.