

Rishi Tikare Yang

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EDUCATION

University of California, Berkeley

Bachelor of Arts in Computer Science - GPA: 3.8/4.0

Berkeley, CA

Class of 2024

- ❖ Probability and Information Theory, Optimization, Algorithms, Robotics, Discrete Math, Data Structures, Computer Architecture, Design of Computer Programs, Databases
- ❖ Studied at the Universidad Nacional Autónoma de México, earned a GPA of 9.0/10, and took Databases, Anthropology of Afro-Americans, Global Systems, in Latin America

EXPERIENCE

Modeling an Optical Computer for Image Classification

Physics Modeling, Unsupervised ML, CUDA, PyTorch

Sandia National Labs

Summer 2023

- ❖ Developed a model of a photonic computer to classify images of material science data
- ❖ Integrated GPU optimizations using pytorch and CUDA
- ❖ Worked with an international team of research scientists and graduate students, gave an oral presentation, and wrote a scientific-paper style report

Science Mentor at Berkeley Engineers and Mentors

Leadership, Communication, Committee Head, Site Leader

UC Berkeley Club

August 2020–Present

- ❖ Education club at UC Berkeley focused on inspiring interest in STEM fields and providing accessible science lessons to our local community by teaching weekly science lessons
- ❖ Lead the Outreach committee responsible for organizing volunteer events and socials
- ❖ Also lead a group of 4-5 college students every semester to teach weekly science lesson

PROJECTS

Unsupervised Learning via Robotic Interaction

Deep Learning, SLAM, Robotic Control, Computer Vision

Class EECS 106a

Fall 2023 (current)

- ❖ As a project team, we are working on a robot that can develop a model of objects in its environment through interaction and unsupervised learning, in order to complete a toy problem. The motivation for this project is to make a robot that utilizes deep learning and unsupervised learning, and can develop a long term memory of objects and the environment.

Voice Controlled Car - Class Project

Classification, Control, Feedback, Signal processing

Class EECS 16b

Summer 2021

- ❖ Built a voice controlled car using a microcontroller, breadboard, and other components
- ❖ Designed circuits, used feedback in the steering control, and machine learning in the control and voice recognition parts of the robot

Godot Video Game - Personal Project github.com/rishikiram/Easternly-Apps

UI/UX, Physics Engine

Self Led

Summer 2021

- ❖ Created an endless, side scrolling video game including all of the art and code. Used various open source software, namely the Godot engine.
- ❖ Implemented a custom physics model and a random procedural generation algorithm
- ❖ Designed the UI with minimalist ideas focused on interactive learning by the player

SKILL AND INTERESTS

Programming Languages - Python, Java, C, RISC-V, HTML, SQL, Scheme

Interpersonal - Leadership, Teamwork, Communication skills. Fluent in English and Spanish

Interests - Sports, Outdoors Activities, Piano, Cooking, Origami, Learning Languages