

# Saurabh(Sunny) Jayaram

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## Skills/Tools

Programming Languages: **Python, JavaScript, HTML/CSS, Java, TypeScript**

Machine Learning/Data Science: **PyTorch, OpenCV, NumPy, Pandas**

Tools/Frameworks: **React.js, Node.js, Azure, Next.js, Git, TailwindCSS, Spline3D, Docker, Flask, FastAPI**

Databases: **Firebase, MySQL, Pinecone Vector DB, LanceDB**

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## Experience/Projects

- OpenRx - <https://devpost.com/software/openrx-v8whuo>
    - Won Best New Technology Hack @ CruzHacks by UC Santa Cruz 2023
    - Led a team to design and develop a custom CRUD app for prescription management, featuring a photo scanner that leverages Computer Vision and LLM AI to automatically log prescriptions
    - **Relevant Skills: Azure Cognitive Services, Next.js, React.js, UI/UX design, TailwindCSS, Firebase No-SQL, OpenAI LLM API, Asynchronous API calls in JavaScript, Prompt Engineering**
  - Bookmark.AI - <https://devpost.com/software/bookmark-ai>
    - Won \$5000 LanceDB Prize @ AI x Product Hackathon SF (2023)
    - Leveraged semantic search + GPT-4 to update LLM with minimal hallucinations and cited sources
    - Developed a containerized Python REST API backend using Docker and FastAPI + React frontend
    - Built a Chrome Extension in pure HTML/CSS/JS that called backend with JS Fetch API
    - Managed a Github repo with multiple people committing to it, executing branching, rebasing, and merging
    - **Relevant Skills: Product Ideation Using Modern Technologies, Vector Database/Vector Search, Prompt Engineering, Git/Github, FastAPI, React, Containerized APIs with Docker**
  - Next.js + Flask AI Security Server
    - Implemented a local surveillance server that monitors RTSP streams from my home's IP cameras
    - Fine tuned image classification CNN using PyTorch for person detection utilizing data ingestion pipelines, transformations, augmentations and data loaders, trained on cloud GPU's in Azure ML studio
    - Integrated custom backend API in Flask with React & Nextjs frontend that displays AI video analytics
    - **Relevant Skills: PyTorch, Flask, Azure ML Studio, Cloud Computing, REST API Development, Internet Protocols, FFMPEG**
  - Sound Waves and Music: a Visual Explanation - <https://youtu.be/WgI4230d0FA>
    - Won "THE MOST POLISHED PROJECT" @ Assemble Hackathon (2022)
    - Mathematical Animations in Python to explain concepts of signal processing, sound waves, and music
    - **Relevant Skills: Linear Algebra, Python, Docker, Jupyter Notebook, Sound Engineering**
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## Education

1. Software Engineering - LPC (2023-2025) → UC or CSU transfer to pursue B.S in Software Engineering (2027)
  2. California High School (2019-2023) - 4.14 WGPA
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## Honors and Awards

1. \$5000 LanceDB Prize @ AI x Product Hackathon SF (2023) - <https://devpost.com/software/bookmark-ai>
2. Best New Technology Hack @ CruzHacks by UCSC (2023) - <https://devpost.com/software/openrx-v8whuo>
3. Best Solo Hack @ Los Altos Hacks VII (2023) - <https://devpost.com/software/caloriesnap>
4. The Most Polished Project Award @ Assemble by Hackclub SF (2022) - <https://youtu.be/WgI4230d0FA>
5. [BACF Special Award for Music Performance](#) (2023)
6. #2 For Best Overall Project @ Tri-Valley Hacks (2022)
7. National Merit Commended Scholar (2021)