

# Jeffrey Fan

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[LinkedIn Profile](#)

[Personal Website](#)

A student looking forward to creating cool things from the fundamentals of biology, physics, and computer science! Excited to develop more tools to help more people!

## SKILLS

General Programming

- Web **JS/TS** **HTML/CSS** **NodeJS** **ElectronJS** **React**
- Java **OOP** **Architecture**
- Python **Numpy** **SciPy** **Tkinter** **PyGame**

General Biology

General Physics (Newtonian, Lagrangian)

Graphic Design

Commitment/Dependability

Independent and Self-taught

## AWARDS

- FRC Autonomous Award
- USACO Silver
- Congressional App Challenge Honorable Mention
- FIC Honorable Mention
- SVTT Honorable Mention

## EDUCATION

Palo Alto High School –  
Class of 2026

## EXPERIENCES

### Software Captain – FIRST Robotics Competition (2023-Now)

- Management of a team of over 30 software recruits
- Robot competes in 3 annual regionals
- 2025: Top 15 in California, top 120 in the world
- Created a robust robot development environment
  - Necessary debugging and tuning tools built in for rapid testing in the short 2-month season
  - Modularity and collaboration-focused software architecture promotes sustainability
  - Versatile custom library speeds up development tenfold
- Created a front-end application for interaction with the robot during a competition

### Group Lead – COSMOS UC Davis: Computational Biology (Summer 2024)

- Created [front-end application](#) capable of simulating numerous mathematical models
  - Fitz-Nagumo neuron and heart action potential model
  - Gierer-Meinhardt animal coat pattern formation model
  - Boid and Viseck flocking model
- Presented an analysis on Gierer-Meinhardt pattern amplification frequency related to initial empirical model parameters to professors

### Tech Lead – Applied Computing Foundation: Noteblast (2022-2024)

- Solely created a [full-stack application](#) providing musicians with free instrument tuning and built-in sightreading gameplay
- First author of published paper about music and education sustainability in JSR

### General App Development – (2020-Now)

- Scratch account (>850 followers, >40K cumulative views)
- 20+ projects and games in JS and Python
- Chrome extension developer with [one extension](#) with >900 weekly users and >3000 installs