Alex Hovakimyan

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Education

Computer Science B.S — *San Jose State University* Sep 2022 - July 2026 (est.)

- **GPA:** 3.9
- **Coursework:** Algorithms and Data Structures (C++), Multivariable Calculus, Linear Algebra, Differential Equations, Intro to Assembly Language (X86), Probability and Statistics for CS (Python)

Work Experience

National Renewable Energy Laboratory (NREL) — *Intern* Jun 2023 - Sep 2023

- Worked as a full-stack developer on CYSAT-Hydro, a software utility that provides a comprehensive anomaly detection and mitigation tool for hydro power plants.
- Developed gRPC services to route data and analyze hydro power plants' economic metrics
- Designed an asp.net core front-end which displayed data from a mongoDB

Google's Computer Science Summer Institute — *Scholar* Jul 2022 - Aug 2022

- Participated in a 4-week intensive computer science summer program for high-achieving students
- Attended product design, resume development, and software engineering interview workshops
- Delivered a collaborative final project presentation that included a live demonstration to Google employees and community leaders

Robotics Projects

Chess Robot Arm — *Python, OpenCV2* Apr 2024 - July 2024

- Created chess robot arm with foothill engineering club
- Used aruco markers to identify and localize pieces to the board
- Used camera calibration to undistort images taken by the robot

Self Driving Car — *Python, OpenCV2, Tensorflow* Apr 2023 - May 2024

- Setup all car electronics and RPI4
- Designed and coded software pipeline from collecting data to the car self driving
- Used tensorflow model with convolutional layers for vision-to-actuator model

Stereo Camera Depth Detector — *Python, OpenCV2* Jun 2023 - July 2023

- Setup 2 web cameras to measure depth using stereo camera setup
- Used opencv stereo camera and calibration libraries
- Created depth map from disparity map

Arduino Dribbling Timer — *C++* Mar 2021

- Built a device which times soccer dribbling exercises
- Utilizes Arduino UNO R3 and an ultrasonic sensor to track the ball's position

Skills

Programming Languages: C++, Python, Javascript, Java, C#

Developer Tools: OpenCV2, Git, Github, TensorFlow