

# Chandra Suresh

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<https://github.com/curesh>

## EDUCATION

### University of California, Los Angeles B.S. Electrical and Computer Engineering

Expected graduation: June 2023

3.88 GPA, Member of Electrical and Computer Engineering Dept.'s Fast Track honors program (awarded to top 7% of incoming dept. freshman)

### Culver City High School, CA

2015-2019

3.93/4.00 GPA, Graduated with highest honors given by California Scholarship Federation

## EXPERIENCE/PROJECTS

### Online Course Repository Project

July 2020 - Present

- Built a webapp that serves as an organized and dedicated database for online lecture recordings from various courses and institutions, using Flask, SQLite, and Bootstrap
- Built a highly accurate automated anonymizer (optimized for Zoom recordings), written in Python, that censors faces and other identifying information present in the recordings

### Visual Machines Group, UCLA — Research assistant

June 2020 - Present

- Wrote a Python program that tracks a subject's heart rate through video input, by analyzing the subtle rhythmic motions of the head
- Wrote textbook exercises and python solutions for ECE 239AS: Computational Imaging (a graduate computer vision course), regarding surface reconstruction through photometric stereo, and hyperspectral image reconstruction through Gauss-Newton nonlinear optimization, etc.

### Low Poly Compression

March 2020 - April 2020

- Wrote Python script incorporating OpenCV libraries that converts images and videos into poly art
- Implemented preprocessing of image (or frame), edge detection algorithm, optimized node locations for polygon vertices, then ran Delaunay Triangulation algorithm to generate triangles across the image

### GPS Optimizer

January 2020

- Tool that optimizes deliveries to various locations Los Angeles from a central depot, and outputs optimal step-by-step street directions from the different locations along route; uses custom hashmap implementation
- Used algorithms in C++ including simulated annealing to find the best path

## SKILLS

Python, C++, React.js, Java

Git, Bash, Flask

OpenCV

SQL

## AWARDS

### Innovation in Control Award

Won in FRC (a national robotics competition for high school students) for our robot's superior vision capabilities

### National AP Scholar Award

For scoring 5/5 on 8 Advanced Placement exams.

## RELEVANT COURSEWORK

CS 111: Operating System Principles

CS 35L: Software Construction Laboratory

CS 33: Computer Organization

CS 32: Data Structures and Algorithm (C++)

Math 61: Discrete Mathematics

CS M51A: Logic Design/Digital Systems

Physics 1 Honors Series

Math 32: Multivariable Calculus

Math 33A: Linear Algebra

## OTHER CLUBS/ACTIVITIES

IEEE OPS, ACM Cyber and AI