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