

# Shivansh Rustagi

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## Education

### University of California, Santa Cruz

Computer Science, B.S. 2021, GPA 3.84/4.00

Activities: UCSC [College Scholar](#), [President](#) of Santa Cruz Artificial Intelligence, [Co-founder](#) and [Director of Consulting](#) at 180 Degrees Consulting Santa Cruz

Selected Coursework: CMPS 101: [Algorithms](#), CMPS 12B: [Data Structures](#), MATH 21: [Linear Algebra](#), CMPE 16: [Discrete Mathematics](#), MATH 23A + MATH 23B: [Vector Calculus](#), AMS 131: [Probability Theory](#), CE12: [Computer Systems and Assembly](#)

## Experience

### ICURO | Deep Learning and Embedded Systems Intern

June 2019 to September 2019

<http://www.icuro.com/>

- Designed automatic license plate recognition systems through [convolutional neural networks](#) in [Python](#), [TensorFlow](#), and [DarkNet \(YOLO v3\)](#)
- designed [8-bit-quantizable models](#) with decreased inference times to run on UNIX embedded systems (Google Coral Dev Board)
- Researched and designed experiments to measure impact of bias-variance tradeoff for [optical character recognition](#) task with convolutional neural networks.
- created Python library to synthesize California license plate image data, including data obfuscation and transformation options

### Streetcode Academy | Instructor

June 2017 to June 2018

<https://streetcode.us/>

- Taught Web Servers class: how to write full-stack web apps with [Node.JS](#), [Postgres.app](#), and [Express.JS](#); helped students create a Facebook Messenger clone app
- Co-taught class on how to create a personal blog with Amazon [AWS Lightsail](#), [Wordpress](#), [HTML](#), [CSS](#), and [JavaScript](#).

## Projects

### SMLR

March 2019

<https://devpost.com/software/forest-plt0m9>

Created at Hacktech 2019. Developed with [Python \(Flask, Google Cloud Speech Processing\)](#) and [Node.JS \(EJS, Express.JS, Firebase\)](#). Transcribed audio from YouTube videos, piped into [Latent Semantic Analysis](#) implementation in Python to summarize chunks of text in parallel.

### Forest

Amazon Alexa Sponsor Prize Winner | February 2019

<https://github.com/srustagi/cruz hacks-alexa-skill>

Created at CruzHacks 2019. Developed with [Python \(BeautifulSoup4, AWS Lambda\)](#). Created Alexa Skill for UCSC Dining Hall Menus and student dining account information by scraping web page using regular expressions and removing non-entree items to simplify speech-to-text feedback.

## Skills

Python (Numpy, Pandas, OpenCV, PIL, Tensorflow v1, Tensorflow Lite, Keras, PyTorch, Flask, BeautifulSoup, Google Cloud Platform), C, Java, HTML, CSS, React Native, JavaScript (ES6), Node.JS (Express.JS, Jade, EJS, SASS, LESS, Firebase, MongoDB), Unix, Git, REST

## Achievements

Eagle Scout, ACT 36/36, Presidential Gold Award for Community Service