# 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, CSE 143: Natural Language Processing, MATH 24: Differential Equations, CSE 118: Mobile Applications

## 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/cruzhacks-alexa-skill

Created at CruzHacks 2019. Developed with Python (BeautifulSoup4, AWS Lambda). Created Alexa Skill for UCSC Dining Hall Menu and Student Dining Account Information. Scraped web page using regular expressions and removed non-entree items to simplify speech-to-text feedback.

## Languages

Python 3, C, JavaScript (ES6), Java

## Tools

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