

# Harshil Panchal

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## EDUCATION

University of California, San Diego

Computer Science B.S. | **Provost Honors**

September 2020 – December 2022

GPA: 3.675

Ohlone College

Computer Science A.S. | **(with Highest Honors)**

September 2018 – June 2020

GPA: 3.89

### Relevant Coursework:

Operating Systems\*, Computer Security\*, Software Engineering\*, Data Structures/Algorithms\*, Computer Vision\*, Computer Architecture\*, Algorithm Design/Analysis, Database Systems, Assembly Language\*, OOP with C++\*, Java Programming\*

[\* indicates a grade of A- or higher received]

## PROJECTS

Predicting Cook Times From Recipes

November 2022

UC San Diego | La Jolla, CA

- Employed supervised machine-learning techniques to develop a prediction model to predict cook times from recipes
- Conducted data analysis and evaluated accuracy of ML models with changes to parameters/inputs
  - (TF-IDF, LinearRegression, GradientBoostingRegressor, RF-Reg, RidgeCV)
- Reduced baseline model's Mean Squared Error (MSE) from 726 to 92.5 (**improvement of ~87%**)
- Implemented using **Python (Pandas, Scikit-Learn)**

Multi-View Stereo 3D Image Reconstruction

March 2022

UC San Diego | La Jolla, CA

- Applied computer-vision techniques for 3D image reconstruction using 49 images of an object taken from different angles
- Utilized Scale Invariant Feature Transform (SIFT) to identify points of interest and find correspondence across images
- Implemented using **Python (NumPy, OpenCV)**

Bullet Journal

April 2021 – May 2021

UC San Diego | La Jolla, CA

- Developed CRUD web application in quarter-long Software Engineering course in a team of 8
- Front-end lead, worked with **7 teammates** to facilitate implementation of multiple features in daily and weekly logs
- Created main layout for daily/weekly views, and introduced and implemented **5 core features**
- Used vanilla **JavaScript** and **HTML/CSS**

Django Blog

September 2020

Fremont, CA

- Built forum web app that features multiple boards (topics), post, like/dislike, and profile system similar to *reddit.com*
- Created with **Django** and **Bootstrap4**, and database implemented with **SQLite**

EmMe – Emotion & Me

February 2019

TreeHacks Hackathon | Stanford University, CA

- Created an interactive text-bot to track + categorize emotional data and monitor mental health with alerts sent to trusted contacts after extended periods of negative spikes
- Used **JavaScript**, **IBM Natural Language Understanding (NLU) APIs**, **Twilio**, and **Firebase**

## LEADERSHIP AND EXTRACURRICULARS

Dot-Slash Computer Science Club | President

December 2019 – May 2020

Ohlone College | Fremont, CA

- Led weekly meetings teaching **20+ members** about CS fundamentals, web technologies, API usage, etc.
- Created personalized programs to strengthen club members' technical skills with personal projects
- Guided and worked alongside **5-10 members** in weekly Leetcode problem-solving sessions
- Provided platform for members to network with club alumni employed by tech-companies (Google, IBM, Microsoft)

## SKILLS

**Programming Skills:** (Intermediate: C/C++, Java, JavaScript, Python) (Novice: Django, NodeJS, HTML/CSS, SQL)

**Languages:** English, Hindi, Gujarati