

ARAAV PATEL

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EDUCATION

University of California, Los Angeles

Expected, May 2023

Computer Science (BS)

Irvington High School

June 2020

High School Diploma

- **Testing:** American Invitational Mathematics Examination (AIME) Qualifier (x2): Top 1800 students in nation, SAT: 1580/1600, Math II: 800/800, Chemistry: 800/800
- **Relevant Coursework:** AP Calculus BC, AP Statistics, AP Physics C, AP Chemistry, Object-Oriented Python, Object-Oriented Java, C++ Programming

TECHNICAL EXPERIENCE

Software Engineering Research – Georgia Tech

Fremont, CA

Software Research Intern

June 2019 – Feb 2020

- Explored wage and hiring discrimination against gender and ethnic groups in different industries
- Developed Python machine learning algorithm k-Nearest Neighbor to deter outliers in datasets
- Utilized Google Sheets script for data cleansing and Python library matplotlib and Tableau for data visualization
- Research paper was accepted to Southern California Conferences for Undergraduate Research (SCCUR)

San Jose State University CS Department

San Jose, CA

Cloud Computing Research Intern for Professor Robert Chun

June 2019 – Aug 2019

- Researched load balancing algorithms based on environment and node distribution: Shortest Job First (SJF), First Come First Serve (FCFS), and Round Robin (RR)
- Modified SJF and combined with Generalized Priority (GP) to reduce makespan and optimize resource utilization
- Used Java Cloudsim to demonstrate efficiency of modified algorithm

Boster Biological Technologies

Pleasanton, CA

Data Science Intern

Nov 2018 – March 2019

- Utilized Python web scraping with libraries urllib and BeautifulSoup to parse through 38,000+ scholarly articles to connect with company products
- Implemented statistical techniques: distribution of words and phrases from key dictionary terms, collocation of words and phrases and character distances, objective value assignment to location of word or phrase

ADDITIONAL EXPERIENCE

Troutriver (Awarded Presidential Service Gold Award)

Fremont, CA

Co-Founder

June 2019 – Present

- Revolutionizing the extracurricular matching process through ML and artificial intelligence
- Diversifying equitable high school research and internship opportunities through data analytics
- Bridging socioeconomic gaps in the high school extracurricular playing field
- Currently in beta phase. Developing website and web application before outreaching to summer programs and high school research opportunities

PROJECTS

25th Hour – Mobile Application: [Project Link](#)

April 2020

- Native iOS application built with Swift in XCode, helping boost productivity by cutting down time from activities that happen everyday (showering, social media, TV) that are able to be reduced
- Time reduction powered by ML algorithms to better suit user's lifestyle and preferences

Rock, Paper, Scissors with Smart CPU: [Project Link](#)

Jan 2020

- Python-based application where users can play rock, paper, scissors against randomly generated moves or choose to play against a CPU with pattern detection
- Markov chain model and pattern detection algorithm analyzes player's moves in subsets of 3 to pick the next best move

SKILLS & INTERESTS

- **Tech-Skills:** Java, Python, C++, Swift, HTML/CSS, Javascript, Android Studio, Angular, BeautifulSoup, Urllib
- **Gen-Skills:** Research, Excel, Tableau, Google Sheets Script, PowerPoint, Microsoft Office, Public Speaking
- **Interests:** Volleyball, Sudoku, Guitar, Competition Math, Technology