

Soumil Gad

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Davis, CA 95616

Education

Bachelor of Science: Computer Science

Expected Graduation in 2025

University of California, Davis

Davis, CA

- Cumulative GPA: 3.5
- Major GPA: 3.7

Relevant Coursework: Data Structures, Algorithm Design and Analysis, Discrete Math for Computer Science, Linear Algebra Computer Lab

Skills

Programming Languages: Python, C/C++, MATLAB

Tools: Git, Jupyter Notebook, Pandas, Numpy, Scikit-learn, Linux, Microsoft Excel, JSON

Inherent: Rapid Prototyping, Design Thinking, Project Management

Projects

Player Scouting System [Python, Pandas, Numpy]

Dec 2022 - Current

- Assembling a dynamic ranking of all college basketball players
- Constructing a set of parameters to assign to each player, as a means to rank them
- Utilizing numpy and pandas to chart players into an interactive table
- Developing algorithms to change player rankings based on which parameters the user wants weighted more

2022 FIFA World Cup Simulator [Python, Pandas, Scikit-learn, Jupyter Notebook]

Oct 2022 - Nov 2022

- Built a Monte Carlo prediction model for the 2022 FIFA World Cup
- Created a machine learning shell, which we trained with previous team performance data, to generate current statistical data for each team
- Utilized the Pandas framework to analyze and compare data created for each team and formed probabilities for their head to head matchups

Fair Team Creator [C++, Linux]

Nov 2022

- Coded a program that, given a list of players and their win percentages, forms the fairest possible teams including each player
- Utilized a greedy algorithm to optimize runtime for large inputs while still providing an accurate solution
- Program is capable of reading in command line arguments, parsing json input, and utilizes a binary heap to store input

Self Balancing Binary Search Tree [C++]

Oct 2022

- Built a binary search tree data structure that automatically balances after each insertion/deletion, for faster search runtime
- Implemented weak pointers to optimize memory usage of the binary search tree and prevent memory leaks

Activities / Work Experience

Projects Development Team

Oct 2022 - Current

UC Davis Sports Analytics Club

Davis, CA

- Worked on the World Cup Simulator and Player Scouting System projects described above

Tutor

Jul 2021 - Sept 2022

Jovie

San Jose, CA

- Tutored children in K-6 math, science, and english

Youth Soccer Coach

Jun 2021 - Aug 2022

World Cup Soccer Camps

Campbell, CA

- Developed thorough curriculums to instruct beginner soccer players about the fundamentals of soccer
- Taught players how to function in a team setting and play as a single unit

Co-Founder

Dec 2018 - Jun 2021

MorePrep

Cupertino, CA

- Created a company aimed to provide quality SAT/ACT preparation material to underprivileged students through a website
- Conducted research to assess our market's needs and desires for our application
- Prepared pitches to investors, potential partners, and entrepreneurship competitions, leading to over \$4,000 in funding raised and a partnership
- Finalists in Gooddler Youth Summit by Google, TIECon 2019, Diamond Challenge, and finished top 10 in San Jose State Innovation Challenge

Project Lead

Apr 2020 - Jan 2021

Students4Hospitals

Cupertino, CA

- Directed a team of volunteers to handmade industry standard medical PPE (Personal Protective Equipment)
- Established a manufacturing pipeline of buying materials in bulk, distributing to volunteers, and delivering finished PPE to hospitals/clinics