

# Rana Rajiv Lulla

9500 Gilman Dr, La Jolla, CA 92093 +1 (917) 293-1048 [rlulla@ucsd.edu](mailto:rlulla@ucsd.edu)

## Education

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### University of California San Diego

La Jolla, CA

- Major: Math-Computer Science, 3.89 GPA
- Freshman merit scholarship
- Relevant CS Courses: Data Structures and Object-Oriented Design (Tutor), Software Tools and Techniques Lab, Computer Organization and Systems Programming (Tutor), Advanced Data Structures, Design and Analysis of Algorithms, Theory of Computability, Programming Languages: Principles and Paradigms
- Relevant Math Courses: Linear Algebra, Calculus (5 course series), Abstract Algebra (2 course series), Mathematical Reasoning, Discrete Mathematics and Graph Theory, Statistical Methods

Class of 2024

### American School of Bombay

Mumbai, India

- International Baccalaureate Diploma, AP Statistics
- Certificate of Excellence in: Computer Science, Math, Physics (Grades 10, 11, 12)

Class of 2020

### Hong Kong Academy, Hong Kong SAR

2011-2012

### International School of Paris, France

2008-2011

## Experience

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### CitiusTech, Remote

June-September 2022

- International data driven healthcare company specializing in machine learning and algorithmic design
- Working in **Python** using **PANDAS** and **SKLearn/XGBoost** to develop predictive models using healthcare data
- Incorporating Social Determinants of Health to improve prediction rates of medical outcomes

### UCSD CSE Department Tutor, La Jolla

September 2021-December 2022

- Tutored for CSE12 (Data Structures and Object-Oriented Design) and CSE30 (Computer Organization and Systems Programming)
- Course content included data structures, **Java**, **C**, **ARM Assembly** (32 bit), **Bash scripting**, **Computer Logic**
- Held private tutor hours to aid students with their assignments and general course content questions
- Helped create autograders to evaluate and grade student's code and manually graded style (such as commenting)
- Received exclusively positive reviews from all responding students

### Gracie Point LLC, New York

June-September 2021

- Worked on data management and financial modeling at NYC based global specialty finance company
- Helped transition to new tech solutions for automation of tedious processes including transcription and data parsing using **VBA** scripts
- Company extended the internship and continued to employ me on a freelance basis

### Oasis Living, London, United Kingdom

June-July 2019

- Start-up in the "PropTech" sector in London
- Enable individual landlords to enhance rental yield using big-data and machine-learning
- Wrote code in **Django**--with **MySQL**--**ReactJS** and **Jupyter Notebook**

## Summer Programs

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### "Extreme (!) Graph Theory and Combinatorics," Harvard University Summer School, Pre College Program

2018

Ramsey Theory, Game Theory, Van Der Waerden Numbers, & extremal forms of graph theory

### "Computer Simulations and Interactive Media," Stanford Pre Collegiate Summer Institute

2017

Game development in a limited framework, Pico-8, a Lua based language with many limitations

### Java Programming, iD Tech, California Institute of Technology

2015

Low level programming (such as if statements, functions, for loops, etc.) and OOP

## Other

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### Programming Skills

Java, C++, C, Python, Lua, Processing, Javascript, HTML, CSS, Neural Evolutionary Augmenting Topologies (NEAT), ARM Assembly, VBAs, Unix based programming environments, SQL, MATLAB, R, PANDAS

### Personal Projects

- Created a [game](#) and a [mapmaking tool](#) over the course of 6 months, see full github page here: <https://github.com/Metarus>
- Made [Snake](#) and [Tetris](#) AIs using NEAT in Python

### Robotics

- Founding member and co-leader of high school's robotics team, Pangaea. Programming & Electricals lead, Outreach committee lead, driver of robot at competitions, Finance committee
- Individual Awards: Dean's List Award Semi-Finalist in Sydney, 2019, Team Awards: Rookie All-Star, Highest Rookie Seed
- Participated in regional competitions in Sydney, Australia multiple times, and World Championships in Houston, Texas