# Rana Rajiv Lulla

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#### Education

#### University of California San Diego

La Jolla, CA Class of 2024

- 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

#### American School of Bombay

Mumbai, India

• International Baccalaureate Diploma, AP Statistics

Class of 2020

• Certificate of Excellence in: Computer Science, Math, Physics (Grades 10, 11, 12)

# Hong Kong Academy, Hong Kong SAR International School of Paris, France

2011-2012 2008-2011

# Experience

CitiusTech, Remote June-September 2022

- International data driven healthcare company specializing in machine learning and algorithmic design
- Worked in Python using PANDAs and SKLearn/XGBoost to develop predictive models using healthcare data
- Incorporated 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**

"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

#### **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 <u>Snake</u> and <u>Tetris</u> 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