Aniket Iyer - Resume

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EDUCATION

University of California, San Diego   San Diego, CA

- *School of Physical Sciences:* B.S. in Mathematics and Computer Science (*Expected : Dec 2024*)
- *GPA*: 3.56/4.00
- *Relevant Coursework* : Computer Architecture (Software Perspective), Machine Learning Algorithms, Unsupervised Machine Learning, Statistical Natural Language Processing, Digital System Design, Advanced Data Structures in C++, Computer Organization & Systems Programming, Design and Analysis of Algorithms, Cryptography, Real Analysis, Theory of Computability, Graph Theory, Discrete Mathematics, Basic Data Structures & Object- Oriented Design
- *Skills :* C, Python, C++, Java, Git, MATLAB, R, LaTeX, HTML, CSS, JS, React

Northeastern University, Boston (Masters in Computer Science – Set to begin in January 2025)

PROJECTS UNDERTAKEN

Mathematics Honors Thesis Program   Jan 2024 – Dec 2024

- *Mentor : Prof. Jon Aycock, Department of Mathematics at University of California, San Diego.*
- Worked on an independent research project on Ihara Zeta functions and Galois theory and currently authoring a thesis
- Demonstrated analytical rigor and deep interdisciplinary research, connecting graph theory with number theory and crystallography.

AstroVantage: Leveraging ML to Decode Asteroids   July 2024 – Aug 2024

- *Mentor : Prof. Edwin Solares, Department of Computer Science at University of California, San Diego*
- The project aims to enhance our capabilities at understanding asteroids in our solar system using machine learning.
- Our goal with the project is to apply neural networks and regression techniques to predict features of asteroids that are otherwise time or computationally intensive to figure out. We managed to train a deep neural network to predict the diameter of asteroids with an accuracy of **68.7%** and a Test Mean Squared Error of **0.00446**

HousePrice Wizard: ML-Driven Real Estate Valuation

- *Mentor : Prof. Shannon Ellis, Department of Data Science at University of California, San Diego*   Jan 2024 – Mar 2024
- We wanted to explore how changes in each industry affect the housing market, do the busts and booms of some industries have a different or disproportionate effect than others?
- We explored housing prices across 5 different counties: Alameda, San Francisco, Los Angeles, San Diego and Santa Clara between 1990 and 2023 and made predictions for housing prices in the future using regression techniques.

VoyTube – A Web-Application :   Oct 2023 – Dec 2023

- Developed a WebApp that, given a YouTube video URL, returns a map with a pin on each location mentioned.
- This will simplify your itinerary-planning: no more Googling places you heard from a video, our WebApp will do it automatically!
- In addition, when you click on a pin, you'll see a link directing you to booking.com, where you can find hotels for that destination.

LEADERSHIP AND COMMUNITY SERVICE

Tutoring Experience : University of California, San Diego (Department of Mathematics)

- Served as a tutor for Calculus courses at University of California, San Diego. The courses cover the foundations of differential and integral calculus of one variable and also deal with differential equations.
- Held tutoring hours for 6 hours every week and helped Graduate Teaching Assistants facilitate discussion sections.
- Cleared doubts the students had during discussion sections and office hours helped the students bridge gaps in their understanding of concepts. I was also responsible for grading homework assignments, midterms and final examinations.

Mentoring Experience : University Of California, San Diego (SUMS : Society of Undergraduate Mathematics Society)

- I served as a mentor to two of my peers during my sophomore year. I was part of the mentorship program. We had monthly check-ins during which we discussed college courses, research opportunities and internship opportunities.

Fundraiser for Tranquil Charitable Foundation

- Rendered an hour long Carnatic classical music concert on various social networking platforms – YouTube, Facebook, WhatsApp etc., to raise funds for Tranquil Charitable Foundation.
- Tranquil Charity Foundation is a non-profit trust whose mission is to develop a scalable and sustainable solution to improving educational outcomes for students and alumni of public funded government schools through active local community participation.

HONORS AND AWARDS

- Recipient of **Provost Honors** for six quarters at University Of California, San Diego
- Recipient of Award of Merit in Social Sciences in the ICSE Board Examinations 2019 and General Proficiencies Awards in Math, Science, and literary subjects during all years in my high school
- Won the first prize in Inquest - a Science Fair held annually in Mumbai. **I created a deep freezer which runs on electricity generated by solar panels. To make it cost effective, I made solar panels using Compact Discs and Zener Diodes**