

Naman Mansukhani

FRESHMAN AT CARNEGIE MELLON UNIVERSITY, PITTSBURGH, PA



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<https://namanmansukhani.github.io>

<https://github.com/namanmansukhani>

PROJECTS/INTERNSHIPS

Pace Stock Broking Services Pvt. Ltd., New Delhi - Intern (Research Dept.)

Worked on data retrieval and back testing to generate financial trading models. Using Python, I mined dataframes from PDF reports published by the National Stock Exchange to collect data about the changes in the NSE Banking Index and then implemented simple trading strategies to explore this data.

ML project for IRIS Science Fair 2020 - <https://youtu.be/nGZQzkQPD-c> (Demo)

Created a prototype for motion sensor mounted helmets that can detect worker accidents such as falls. I processed the time-series data that we collected from the helmet and then trained scikit-learn models on it to create classifiers to identify the activity being done by the wearer.

Indian National Olympiad in Informatics - 2020, 2021

Qualified for the Indian National Olympiad in Informatics for two consecutive years. This is the second out of third stage for the selection of the Indian team at the International Olympiad in Informatics.

Side Project - Discord bot

I trained Markov chains on tv show transcripts and political speeches to create a Discord bot that can generate random sentences based on these datasets. The transcripts were mined using requests, BeautifulSoup 4, and regex. The bot can also be used for server administration tasks and creating reminders.

EDUCATION

Carnegie Mellon University, Pittsburgh, PA - BS in Information Systems

Fall 2021 to Spring 2025

4.0 GPA for Fall 2021 – including courses 15-122 (Data Structures & Algorithms), 21-127 (Discrete Math), and 21-241 (Linear Algebra)
Technical courses for Spring 2021 – 15-213 (Computer Systems) and 15150 (Functional Programming).

College Credit

Received college credit from the following five AP courses by scoring 5/5 in each: AP CS A, AP Calculus BC, AP Physics C Mechanics, AP Physics C EnM, AP Chemistry

Delhi Public School R. K. Puram, New Delhi - Grade 12 CBSE – 98.2%

April 2017 - May 2021

President of the Student Council and Senior Member of Exun Clan (Computer Club), MatSoc (Mathematics Club), French Club, Chemistry Club and the Physics Society of the School.

Grades

Grade 12 – 98.2% | Grade 11 – 92% | Grade 10 – 98% | Grade 9 – 93.6%

Standardized testing

Scored a 36 on the ACT and 800 on the SAT Subject Tests (Math level 2, Physics and Chemistry).

COURSES AND CERTIFICATIONS

Stanford Machine Learning Course on Coursera

This course helped me explore the mathematics behind popular machine learning algorithms and gave a base to further explore machine learning.

Deep Learning Specialization by deeplearning.ai on Coursera

Through this series of five courses on Coursera taught by Prof. Andrew Ng, I explored the usage and mathematics behind Neural Networks and Deep Learning.

DELF – Completed three levels of the French Language Diploma (B1, A2, A1)

SKILLS

Programming – Python, C++, Java

- Used Python for machine learning and development projects.
- Used C++ for competitive programming.
- Learnt Java for my AP CS A exam.

Machine Learning – numpy, pandas, sklearn, keras

- Proficient in using numpy and pandas for data analytics and machine learning.
- Used sklearn to train machine learning models.
- Currently learning keras and tensorflow for deep learning.

Web Design – HTML, CSS, JS

- Combined my artistic side with technology to design websites.

Others – Git, MySQL, Flask, Django

- Used git to collaborate on and work on personal projects on GitHub
- Learnt MySQL in school, and used it in personal projects
- Currently learning back-end web-development through Flask and Django

Languages

English, Hindi, French, Sindhi

AWARDS AND HONORS

AP Scholar with Distinction Received a perfect score of 5 on all six Advanced Placement exams attempted.

National Talent Search Examination Scholarship 2019 Qualified among 2000 students for a lifetime academic scholarship in an exam conducted by the NCERT pan-India across 800,000 students.

Technothon 2018 Won a sponsored trip to NASA as the first prize for Technothon 2018 hosted by Indian Institute of Technology (IIT) Guwahati.

Junior Science Talent Search Examination 2018 Qualified for Scholarship provided the Directorate of Education, Delhi to the top 150 students in Delhi.

DPS Society SMTE Scholarship 2018 Secured 3rd rank among the top 120 students who qualified 2nd level of DPS SMTE (out of around 20000 students)