

# Naman Mansukhani

SOPHOMORE AT CARNEGIE MELLON UNIVERSITY, PITTSBURGH, PA



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<https://namanmansukhani.github.io>

<https://github.com/namanmansukhani>

## PROJECTS/INTERNSHIPS

### Linux Programmer – Mellon College of Science (CMU) – Feb 1 to May 8

Worked for the Director of Scientific Computing, Dr. Florin Manolache. Created a Flask API for regression on data from scientific experiments. Used Flask, numpy, pandas, and scikitlearn.

### 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.

### Dynamic Memory Allocator & UNIX shell – Computer Systems

Wrote a dynamic memory allocator in C with explicit and segregated free lists for the Computer Systems (15213) class at CMU. Also created a UNIX shell for the same class. Learnt about UNIX processes and syscalls for this project.

## EDUCATION

### Carnegie Mellon University, Pittsburgh, PA - Fall 2021 to Spring 2025

#### BS in Information Systems and Computer Science – 4.0 GPA

Dean's List with High Honors: Fall 2021, Spring 2022

#### Courses for Fall 2022:

15251: "Great Theoretical Ideas in Computer Science"

15210: "Parallel and Sequential Data Structures and Algorithms"

#### Courses Taken:

15213: Computer Systems – A

15150: Functional Programming – A

15122: Data Structures and Algorithms – A

21241: Linear Algebra – A

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

April 2017 - May 2021

President of the Student Council

Senior Member of Exun Clan (Computer Club)

#### 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.

DELFI – 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 & Data Science – 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, Shell Scripting

- 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

## AWARDS AND HONORS

### 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.

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

### 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)