

# Sanya Nema

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## EDUCATION

### University of Illinois Urbana-Champaign

*Bachelor of Science in Computer Science & Economics*

**Dec 2023**

**GPA: 3.77/4.0**

Relevant Courses: Intro to Computer Science, Freshman Honors Computer Science, Multivariable Calculus, Discrete Structures, Software Design Studio, Inter-Microeconomic Theory

Leadership and Activities: CUBE Consulting, Economics Club, Women in Computer Science

## EXPERIENCE

### Boo Enterprises

*Machine Learning Intern*

**San Francisco, CA**

*May 2021 – August 2021*

- Launched website with over 10,000 personality profiles to increase user traction and search engine optimization using efficient webscraping scripts with Python and Selenium, which increased company revenue by 25%.
- Led initiative on building main machine learning algorithm to improve user recommendations using SciKit Learn, OpenCV and TensorFlow.
- Utilized the Haar Cascades classifier to develop content-based ML recommendations on over 64,000 users.
- Worked with the MongoDB database and analyzed JSON objects regarding user information.

### CUBE Consulting

*Consultant*

**Champaign, IL**

*Sep 2020 - Present*

- Collaborated with a team of consultants on a dynamic webscraper to assess industry readiness of healthcare technologies from BIG 10 colleges.
- Worked with BeautifulSoup library to parse HTML webpages and create summarized reports.
- Determined how to implement machine learning on data to classify industry readiness of a certain university startup technology using Python.
- Built the means to automate the scraping process of these sites with chosen types of data.

### University of Illinois-Chicago

*Research Intern*

**Chicago, IL**

*Jun 2019 - Aug 2019*

- Developed a model database with 1,000 elements to exhibit differential privacy algorithms.
- Incorporated probability and statistics using Laplace Distributions within database to ensure accuracy.
- Researched differential privacy's impacts on user security for Fortune 500 companies and analyzed their data collection processes.
- Simulated the randomized response algorithm in Java with a coin toss algorithm.

### NASA Goddard Space Flight Center

*Research Intern*

**Greenbelt, MD**

*Jun 2018 - Aug 2018*

- Built a Python program to analyze soil moisture data in South Africa acquired from Soil Moisture Active Passive (SMAP) satellite data.
- Utilized matplotlib to visualize data 12+ months prior the 2018 water crisis.
- Implemented data from the radar that sends radiation pulses actively down to a spot on the Earth.
- Created models that measure the radiation being omitted from spot on earth passively.

## PROJECTS

### Options Watchlist Web Application

- Designed a mock options portfolio in Python allowing users to trade contracts and learn about options.
- Implemented a web application using the Django framework to create a user-friendly display.
- Retrieved data regarding stock prices and changes through Yahoo Finance by parsing their HTML code.
- Cultivated quantitative strategies and knowledge of finance.

### Naïve Bayes Image Classifier Algorithm

- Created a software machine learning algorithm in C++ utilizing the Naïve Bayes statistical model.
- Developed a GUI using Cinder to classify handwritten drawings of integers with 76% accuracy.
- Solidified knowledge of statistics and probability with intermediate knowledge of Bayes' Theorem.

## SKILLS

**Languages:** Java, C++, Python, HTML, CSS, Git, Javascript, Rust, Terminal, BeautifulSoup4, Selenium

**Technologies and Platforms:** Tensorflow, Scikit Learn, Django, VSCode, IntelliJ, CLion, Cinder