Shashwat Kathuria

Computer Science & Engineering,

IIT Jodhpur

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Home : New Delhi, India

Indian Institute Of Technology, Jodhpur
Bachelor Of Technology (Expected 2021)
3rd Year Undergraduate
CGPA : **9.14/10** (Till 4th Semester)

Interests

- Machine Learning
- Cryptography
- Android Application & Web Development
- Data Structures And Algorithms

Technical Skills

WEB DEVELOPMENT

- Django
- HTML / CSS
- PostgreSQL
- Bootstrap
- Flask
- JavaScript
- SQLite
- Jinja

PROGRAMMING LANGUAGES

- Python
- C++
- Java / Android Java
- C

UTILITIES

- Git
- Raspberry Pi
- SSH
- Microsoft Azure

Projects

Natural Language Processing / Machine Learning, NLTK, Scikit

Programmed various Hindi Part of Speech taggers using **Hidden Markov Model** and **Viterbi's Algorithm (BiGram and Trigram)** and **Decision Tree Classifier Model** and achieved **92.85 %** accuracy.

IITJ HealthCare Centre / Software Engineering, Web Development

An online health care assistance portal made using **Django (Python)** and **Bootstrap (HTML / CSS / JavaScript)** to help students get online prescriptions from doctors and availability regarding medicines through medical store.

Disaster Safety App / Android Application, Web Development

Programmed an android and web application to broadcast and get online alerts regarding earthquakes, floods and hurricanes by communicating to the server, using **Flask (Python)** and **Android Studio (Java)**.

Cryptography / Python, C

Analyzed and programmed CBC **Padding Oracle** attack, hash verification of videos using **SHA-256**, CBC and CTR Modes **AES Decryption**, **Many Time Pass** hack along with a guessing heuristic, and various historic ciphers as a part of Cryptography I course under Professor Dan Boneh.

Data Structures And Algorithms / Python, C++, C

Programmed a total of 35 programs (and growing) in **Python**, **C++** and **C** , a major part of which was of the Stanford University Data Structures and Algorithms Specialization under Professor Tim Roughgarden.

Drag v/s Normal Projectile / PyLab - Python

Graphical comparison of drag and normal particle projectiles using **PyLab** library in **Python.**

Extra Courses

Data Structures And Algorithms Specialization / Stanford University
- Divide and Conquer, Sorting and Searching & Randomized Algorithms
- Graph Search, Shortest Paths & Data Structures
- Greedy Algorithms, Minimum Spanning Trees & Dynamic Programming
- Shortest Paths Revisited, NP-Complete Problems & What To Do About Them

Cryptography I / Stanford University

MIT 6.00.1x, Introduction to Computer Science and Programming Using Python / Massachusetts Institute of Technology

MIT 6.00.2x, Introduction to Computational Thinking and Data Science / Massachusetts Institute of Technology

CS50, Introduction to Computer Science / Harvard University

CS50, Web Programming with Python and JavaScript / Harvard University

Android Specialization / Google, Udacity

Education

G. D. Goenka Public School, New Delhi

Class 12, 2017
Central Board Of Secondary Education **: 96%**

Class 10, 2015
Central Board of Secondary Education **: 9.6 / 10**

Scholastic and Extracurricular Achievements

- Former State Level Football Player, New Delhi
- Football Inter - Zonals Winner, New Delhi
- 4 - Time School Level Athletics Record Breaker
- SAT Subject PCM Perfect Scorer - 2400 / 2400
- SAT Score - 2100 / 2400
- 3 - Time Scholastic Excellence Awardee
- School Topper, Class 12 CBSE Exams
- Participated in Various Olympiads, Trekking Camps

Positions of Responsibility

- Vice Sports Captain, Class 11
- Sports Captain, Class 12
- Participated in Various NGOs