

Japjeet Singh Rekhi

japjeetsingh.rekhi@stonybrook.edu | 631.710.8492

EDUCATION

SUNY - STONY BROOK UNIVERSITY
MSC IN COMPUTER SCIENCE
Dec 2020 | Stonybrook, NY

SRM UNIVERSITY
B.TECH IN COMPUTER SCIENCE
May 2019 | New Delhi, India

SKILLS

PROGRAMMING

Proficient:

Python • Django • CSS • HTML • JSON
• Git • GitHub • Django Rest Framework
• RestAPIs • Bootstrap • SQL

Familiar and Used:

Java • Javascript • PHP • Celery •
jQuery • Linux • React.js • BeautifulSoup
• Flower • Leaflet.js • Selenium • Nginx •
PostgreSQL • Ajax • AWS • OAuth

LINKS

GITHUB:

github.com/japjeetrekhi

LINKEDIN:

linkedin.com/in/japjeetrekhi/

PERSONAL WEBSITE:

japjeetrekhi.github.io/

COURSEWORK

- Data Science Fundamentals
- Theory of Database Systems
- Natural Language Processing
- Analysis of Algorithms
- Probability and Statistics
- Data Structures and Algorithms
- Computer Networks
- Network Security
- Logic in Computer Science

HACKATHONS

Hack@CEWIT 2020 - Analyzed sleep patterns of famous people from different professions by scraping tweets and doing sentiment analysis. Came up with interesting insights for the professions.

EXPERIENCE

POLITECH LAB | RESEARCH PROJECT INTERN

May 2020 – July 2020 | SUNY - Stony Brook University

- Developing a system to automate US electoral redistricting in an unbiased way, using election and demographic data.
- Created APIs to clean and aggregate data and store them in AWS S3 as json files. Optimized data retrieval performance by building a cache.
- Implemented refresh token which allows the user to stay logged in for 30 mins.

DIGIGEES | SOFTWARE ENGINEERING INTERN

May 2018 - July 2018 | New Delhi, India

- Worked on APIs for car racing enthusiasts to browse racing events and to register for them, based on their location.
- Created user login/registration system, using third party OAuth APIs.
- Used Postgres to store and retrieve user profile data.

TECHNICAL PROJECTS

E-COMMERCE WEBSITE | PYTHON, DJANGO, DRF, JAVASCRIPT

- Developed apparel shopping website using Python and Django with home page, item page, cart and checkout.
- Integrated third party OAuth and also created a search engine based on item specifications.
- Integrated Stripe and Paypal APIs for payments.

AUTOMATED NEWS SCRAPER | PYTHON, DJANGO, CELERY, FLOWER

- Developed a web scraper using Selenium and Django to collect all the links from a website for news.
- Used Celery for task processing and Flower to monitor the Celery clusters.
- Implemented built-in search and pagination for posts filtering.

SWIPE KEYBOARD | PYTHON, FLASK

- Developed a keyboard based on the SHARK2 algorithm to predict words from swipe typing.
- Improved the original algorithm's speed by over 60% and accuracy by over 15% by creating a custom alpha parameter and modifying the location and shape channels.

GEOTAGGED-IMAGE SERVICE | PYTHON, JAVASCRIPT

- Developed a chrome extension alerting users about geotags in their images.
- Analyzed and wrote a research paper to highlight the vulnerabilities in Geotagged Images and the policies adopted by social networking websites to tackle it.
- Wrote a script to scrape images from Flickr, extract EXIF data from images and obtain the GPS coordinates in order to log them into a CSV file.

WORD ANALOGY TASK USING WORD2VEC | PYTHON, NLP

- Implemented Skip-gram Model to learn word embeddings and evaluated them with Cross Entropy and Noise Contrastive Estimation.
- Applied the learned word embeddings to test word analogies and tuned the parameters for better accuracy.