Raunaq Jain

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EDUCATION

University at Buffalo**,** SUNY, MS in Computer Science [GPA: 3.81/4]   08/2019 – 12/2020

Maharaja Agrasen Institute of Technology, GGSIPU, B.Tech in Computer Science [CPI: 71.98%]   08/2014 – 05/2018

SKILLS

Languages/Frameworks/Databases: Python, Django, Java, Rust, SQL, MongoDB
Tools: Git, Android Studio, Apache Solr

EXPERIENCE

Volunteer, University at Buffalo   06/2020 - Present
- AI in Ethnobotany (AIE)
  - Developing an application in Flask to process and classify images and videos of plants in the field.
- Software Verification
  - Designing secure storage in Rust for Trusted Execution Environment (TEE)
  - Performing software verification to verify removal of memory leaks and dangling pointers present in kernel.

Machine Learning Intern, **Nulenta Private Limited**   12/2019 – 01/2020
- Developed a resume parser in Django using REST API.
- Built a pipeline to match and score job requirements with user profiles for automatic candidate selection.

Machine Learning Research Intern, **Hypothizer**   07/2018 – 02/2019
- Designed a cloud-native document processing platform for enterprises that captures intelligence-ready data from documents.
- Improved **accuracy by 10%** through feature engineering and custom models.
- Developed application in Django to parse entities from unstructured documents.

Research and Development Intern, **All India Council for Technical Education, Govt. of India**   10/2017 – 03/2018
- Enhanced AICTE's Approval Process Handbook to authorize higher education institutes.
- Created a web application in Django to utilize machine learning that predicts employment potential of universities.
- Evaluated data of 5 years to analyze employment statistics in Python and presented interactive plots for user interface.

PROJECTS

Server Programming   02/2020 – 05/2020
- Built a multicast totally-FIFO ordered messenger application in Java using sockets in Android.
- Developed a distributed hash table chord ring for communication between nodes in Android.
- Created a distributed messaging system with fault tolerance and recovery of nodes in Android.

FEVER: Fact extraction and Claim verification   02/2020 – 05/2020
- Developed an application in Flask to extract sentences from Wikipedia articles and check credibility of a claim.
- Indexed 185K claims on Apache Solr and boosted document retrieval.
- Inferenced contextual similarity between claim and evidence sentence in Python.

DogDogGo, Search Engine Application [Demo]   11/2019 – 12/2019
- Built end-to-end tweet search engine involving content ingestion, topic categorization, and analytics. Indexed 200K multi-lingual tweets using **Lucene Solr**.
- Analyzed impact of political rhetoric in traditional and social media and represented using interactive plots.
- Responsible for Solr management and backend development (REST API) to implement features like **tf-idf** ranking, pseudo relevance feedback, more like this, filter-based search, query translation, and search highlighting.
- Hosted the application on Amazon Web Services (AWS) EC2 instance.

Inverted Index   10/2019
- Built an inverted index and implemented Boolean querying through DAAT-AND and DAAT-OR technique. Ranked results using term-frequency inverse document frequency (tf-idf) metric.

ACHIEVEMENTS

- Awarded **1st prize** ($3000) in **Smart India Hackathon'17, MHRD, Govt. of India,** against 7400+ teams.
- Conferred **Technical Researcher Award** by the Computer Science & Engineering department at MAIT, Delhi.
- Certified **Grade III Rock & Pop Guitar** from Trinity College, London.