SAKSHAM MRIG

4TH YEAR UNDERGRADUATE @ IIIT DELHI

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EDUCATION AND SKILLS

Indraprastha Institute of Information Technology, Delhi

(2019 - 2023)

- Bachelor of Technology, Computer Science and Applied Mathematics
- Courses: Operating Systems, Data Structures and Algorithms, Compilers, Natural Language Processing, Theory of Computation, Advanced Algorithms, Data Mining
- CGPA: 8.77/10

Technical Skills: C/C++, Python, Java, PostgreSQL, MySQL, React, Django, Ocaml

RESEARCH PAPERS

Leveraging Intra and Inter Modality Relationship for Fake News Detection

WWW 2022 Research Conference | Lyon, France

(Feb. 22)

- Presented a novel framework that establishes effectively identifies and suppresses information from **weaker modalities** and extracts relevant information from the **strong modality** on a per-sample basis.
- Outperformed existing methodologies by 3.05% [accuracy] and 4.53% [F1-score], testing on 2 publicly available data-sets

WORK EXPERIENCE

Atlassian

Data Science Intern | PySpark, SQL, Model Building

(May, 22 – July, 22)

- Developed a **neural network based recommendation system** that recommends the best on-site to cloud migration strategy tailored for each customer with a MAP@[k=3] score of **0.70**
- Engineered a pipeline using **PySpark & Databricks** that analyzes cloud-migration survey responses, enriches the data from multiple sources, identifies key drivers and generates insights & visualizations using a **Plotly** dashboard.
- Synthesized the data into **20+ executive-ready insights**, Lead the dialogue with stakeholders and senior team members on how to generate firm-wide impact.

Google Summer of Code (with SugarLabs, Boston)

Student Developer | JavaScript, WebAudio, WebMIDI

(Apr, 20 - Aug, 20)

- Refactored major components in the application to follow MVC (Model-View-Controller) architecture which helped make the codebase modular and streamlined
- **Enhancements over multiple sprints:** Integrated USB MIDI input, PitchAnalyser and Spearheaded the development of a programmable Digital audio workstation
- Resolved 72 issues and improved the in-app search precision by 24%

COMPETITIONS AND PERSONAL PROJECTS

Web Server | C/C++, HTTP

(Jun, 21 - Jul, 21)

- Engineered **lightweight, concurrent** web server in C using libuv library to replicate Nodejs-like event loop and http parser to parse requests
- Integrated **SvelteKit and libtorch** to deploy modern web interfaces for machine learning models, either trained in or exported to C++

Styra | Django, TensorFlow, Chrome Ext

(Mar, 21)

- International winner among 515 teams @ HackPSU, organized by Penn State University
- Built a chrome extension and developed a self-trained mood detection engine using **TensorFlow and Keras** achieving **76**% accuracy
- Tracked users' browsing session using metadata and webpage keyword extraction algorithms like **RAKE**, increasing users' productivity

POSITIONS OF RESPONSIBILITY

- President: Byld Software development club @ IIIT Delhi; Organized Technical sessions and hackathons
 for peer students, fostering interest in open source technologies
- Teaching Assistant: Data Structures and Algorithms; Conducted tutorials and created assignments for 200+ students
- Core Development Team: SugarLabs Open Source Foundation; Contributed to the release of MusicBlocks v3