

SAKSHAM MRIG

3RD YEAR UNDERGRADUATE @ IIIT DELHI — INCOMING INTERN @ ATLISSIAN
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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, **Theory of Computation, Advanced Algorithms, Reinforcement Learning**, Natural Language Processing
- CGPA: **8.73/10**

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

RESEARCH PAPERS

Leveraging Intra and Inter Modality Relationship for Fake News Detection

WWW 2022 Research Conference | Paper Accepted

(Feb, 22)

- We present a novel framework that establishes **intra-modality** relationship via extraction of the fine-grained salient image and text features. We also capture the **inter-modality** relationship via utilization of multiplicative multimodal method.
- Outperformed existing methodologies by **3.05% [accuracy]** and **4.53% [F1-score]**, testing on 2 publicly available datasets

WORK EXPERIENCE

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%**

Knowledge Management Library @ IIIT Delhi

Full stack developer | SAPPER, TypeScript, Drupal

(May, 21 – Present)

- Redesigned the official IIITD library portal using SAPPER and headless Drupal, decreasing the page load time by **32%**
- Devised an easy-to-use system for website managers, enabling them to create responsive and interactive web pages with plain markdown and yaml files

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**



IIIT-Delhi

Okhla Industrial Estate, Phase III, New Delhi-110020

Assessment details for 2019385 Saksham Mrig / July 2019 / BTech / CSAM / Semester 6

July 2019/BTech/CSSS-IIITD/Semester 1

Sl No.	Course	Course Type	Credit	Grade	Grade Point	Action
1	COM101-Communication Skills-Lecture-	Mandatory	4	B-	7	
2	CSE101-Introduction to Programming-Lecture-Tutorial-Lab-	Mandatory	4	A	10	
3	DES206-Prototyping Interactive Systems-Lecture-Lab-	Mandatory	4	A-	9	
4	ECE111-Digital Circuits-Lecture-Lab-	Mandatory	4	B	8	
5	MTH100-Maths I-Lecture-	Mandatory	4	A-	9	
SGPA: 8.60			CGPA: 8.60			

July 2019/BTech/CSAM-IIITD/Semester 2

Sl No.	Course	Course Type	Credit	Grade	Grade Point	Action
1	CSE102-Data Structures and Algorithms-Lecture-Tutorial-Lab-	Mandatory	4	A-	9	
2	CSE112-Computer Organisation-Lecture-Tutorial-Lab-	Mandatory	4	A	10	
3	ECE113-Basic Electronics-Lecture-Lab-	Mandatory	4	B-	7	
4	MTH201-Probability and Statistics -Lecture-Tutorial-	Mandatory	4	A	10	
5	SSH261-Democracy in India:Principles and Practices-Lecture-	Open Elective	4	A-	9	
SGPA: 9.00			CGPA: 8.80			

July 2019/BTech/CSAM-IIITD/Summer Term 1

Sl No.	Course	Course Type	Credit	Grade	Grade Point	Action
1	MSC481-Self Growth-Outside Institute-	Thesis	1	S		
SGPA: 0.00			CGPA: 8.80			

July 2019/BTech/CSAM-IIITD/Semester 3

Sl No.	Course	Course Type	Credit	Grade	Grade Point	Action
1	CSE201-Advanced Programming-Lecture-Tutorial-Lab-	Department Elective	4	B	8	
2	CSE231-Operating Systems -Lecture-Tutorial-Lab-	Department Elective	4	A	10	
3	ECO331-Foundations of Finance-Lecture-	Open Elective	4	B	8	
4	MTH210-Discrete Structures-Lecture-Tutorial-	Mandatory	4	A	10	
5	MTH240-Real Analysis I-Lecture-Tutorial-	Mandatory	4	B-	7	
SGPA: 8.60			CGPA: 8.73			

July 2019/BTech/CSAM-IIITD/Semester 4

Sl No.	Course	Course Type	Credit	Grade	Grade Point	Action
1	CSE202-Fundamentals of Database Systems-Lecture-	Department Elective	4	B	8	
2	CSE222-Analysis and Design of Algorithms-Lecture-	Department Elective	4	B	8	
3	CSE322-Theory of Computation-Lecture-	Mandatory	4	B-	7	
4	MTH204-Maths IV-Lecture-	Mandatory	4	A-	9	
5	MTH212-Abstract Algebra I-Lecture-	Mandatory	4	B	8	
SGPA: 8.00			CGPA: 8.55			

July 2019/BTech/CSAM-IIITD/Summer Term 2

Sl No.	Course	Course Type	Credit	Grade	Grade Point	Action
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Sl No.	Course	Course Type	Credit	Grade	Grade Point	Action
1	BTA300-Teaching Assistantship-Special Topics-	Open Elective	2	S		
2	CSE200A-Competitive Programming-Lecture-	Department Elective	2	A-	9	
3	MSC481-Self Growth-Outside Institute-	Open Elective	1	W		
SGPA: 9.00			CGPA: 8.56			

July 2019/BTech/CSAM-IIITD/Semester 5

Sl No.	Course	Course Type	Credit	Grade	Grade Point	Action
1	BTP499-BTech Project-Thesis- (Project title: Social Media Analytics [tentative])	Open Elective	4	A	10	
2	COM301A-Technical Communication-Lecture-	Mandatory	2	A-	9	
3	CSE556-Natural Language Processing-Lecture-	Department Elective	4	A-	9	
4	CSE564-Reinforcement Learning-Lecture-	Department Elective	4	B-	7	
5	ESC207A-Ecology Evolution and Environment-Lecture-	Open Elective	2	A	10	
6	MTH373-Scientific Computing-Lecture-	Department Elective	4	B	8	
SGPA: 8.70			CGPA: 8.59			

July 2019/BTech/CSAM-IIITD/Semester 6

Sl No.	Course	Course Type	Credit	Grade	Grade Point	Action
1	BIP399-Independent Project-IP/IS/UR- (Project title: DAC in Mental Health)	Open Elective	4			
2	BTP499-BTech Project-Thesis- (Project title: Social Media Analytics [tentative])	Open Elective	4			
3	CSE641-Deep Learning-Lecture-	Department Elective	4			