HARSHIT JOSHI New Delhi, India
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EDUCATION

Cluster Innovation Centre, University of Delhi *July 2017 - July 2021*
Bachelor of Technology Overall Percentage: 85.8% — Major: 87.39%
Information Technology and Mathematical Innovations Department Rank: 2

INTERESTS

NLP, Computational Social Science, Computer Vision, Deep Learning, Statistics

RESEARCH EXPERIENCE

Multimodal Digital Media Analysis Lab (MIDAS@IIITD) May 2020 - Present
Researcher *New Delhi, India*

· Build tools to advance NLP for social good, focusing on contextualizing users posts on social media.
· Proposed interpretable models for Suicide Ideation Detection and analyzing emotional changes of users.

Defence Research and Development Organisation (DRDO) June 2019 - October 2019
Research Intern *New Delhi, India*

· Used CityScape Dataset for Image Segmentation through implementation of DeepLabV3+
· Fine-tuned the model for two classes: void space and obstacle for cognitive mapper.

PUBLICATIONS

* Co-First Authors

H. Joshi*, R. Sawhney*, A. Nobles*, and R. R. Shah, 2021. Tweets Classification to Assist Human Moderation for Suicide Prevention. ICWSM 2021.

H. Joshi*, R. Sawhney*, R. R. Shah, and L.Flek, 2021. Suicide Ideation Detection via Social and Temporal User Representations using Hyperbolic Learning. NAACL 2021.

H. Joshi*, R. Sawhney*, L.Flek, and R. R. Shah, 2021. Phase: Learning Emotional Phase-Aware Representations for Suicide Ideation Detection on Social Media. EACL 2021.

R. Sawhney, **H. Joshi**, S. Gandhi, D. Jin, and R. R. Shah, 2021. Robust Suicide Risk Assessment on Social Media via Deep Adversarial Learning. Journal of the American Medical Informatics Association.

R. Sawhney, **H. Joshi**, S. Gandhi , and R. R. Shah, 2021. Towards Ordinal Suicide Ideation Detection on Social Media. ACM WSDM 2021.

R. Sawhney, **H. Joshi**, S. Gandhi, and R. R. Shah, 2020. A Time-aware Transformer based Model for Suicide Ideation Detection on Social Media. EMNLP 2020.

NON-ARCHIVAL ARTICLES

R. Sawhney, **H. Joshi**, S.Gandhi, and R. R. Shah, 2021. A Time-Aware Transformer Based Model for Suicide Ideation Detection on Social Media. Machine Learning for Health Workshop. NeurIPS.

PROFESSIONAL EXPERIENCE

Supedio GmbH January 2021 - June 2021
SDE Intern *Dresden, Germany*

· Building algorithms for Master Data Management for Healthcare system.
· Leveraging Graphs and Natural Language Processing for document clustering (layouts and content).

Cronycle Ltd. January 2019 - July 2019
Software Engineering Intern for Data Science *U.K. - Remote*

· Ported batch jobs to live production using Kafka and Elastic Search, reducing latency by 5 minutes.
· Increased RSS collection dump by 10% by identifying new data sources and mining them via cron jobs.
· Created a pipeline to send newly ingested data through Kafka to the MongoDB

Google Summer of Code 2018 April 2018 - August 2018
Student Developer at Debian Project *Remote*

· Worked on Extracting Data from PDF Invoices and Bills Details using a Regular Expression based Engine.

· Enhanced tesseract-OCR integration and increased code coverage by 16% by adding tests for functions.
· Developed a GUI application for three major OS (Linux, macOS, Windows) using Python and PyQT.

TECHNICAL STRENGTHS

Computer Languages	Python, C/C++, JAVA, R, SQL
Software & Tools	PyTorch, OpenCV, MySQL, MongoDB, Git, Elastic Search, PostgreSQL, Apache Airflow, Apache Kafka, Apache Spark

NOTABLE PROJECTS

Cognitive Mapping and Planner for Navigation Scientist. S.P. Mishra
DRDO *June 2019 - October 2019*

· Worked on the navigation of bot in the Gazebo environment.
· Used CityScape Dataset for Image Segmentation and used the features in the Gazebo environment
· Built an algorithm for depth perception using image segmentation results and creating disparity maps.

Strategizing Fantasy Football Associate Professor Dr. Sonam Singh
Probability and Statistics *March 2019 - April 2019*

· Made new graphs for better analysis and visualization of players' performance by dividing the graphs into different grids into points vs cost axis.
· Used Gradient Boosting Trees, Stochastic Gradient Regressor, and Linear Regression to regress points scored against 32 features engineered through priori.

POSITION OF RESPONSIBILITY

Govt. of India's Institutions Innovation Council November 2018 - October 2019
Student Coordinator *University of Delhi*

· We achieved a 4-star rating, given by MHRD, Govt. of India
· Lead a team of top 10 innovators, who oversee the innovations across Delhi University.
· 10 teams were shortlisted for the Regional round from our council, which is the most from any University.

HashInclude - Computer Science Society August 2018 - August 2019
External Affairs *Cluster Innovation Centre*

· Spearheaded a team of 40 people to conduct professional shows, exhibitions and talks successfully
· Conducted workshops on Open Source Development and Linux 101
· Organised two State-level student Hackathons with more than 500 participants.

AWARDS AND ACHIEVEMENTS

Received Honorable Mention at 2020 **COMAP's** Mathematical Contest in Modeling (MCM). **Only team from India** to get Honorable Mention.

Invited to give a talk at **PyData Delhi Conference 19** on "Quantitative Finance with R"

Member, Football Team, Cluster Innovation Centre. Reached 2^{nd} round of **Reliance Youth Sports 2019** in our inaugural year of participation.

Mathematical Finance Scholar under Focus Areas in Science and Technology **Summer Fellowship 2019**

Google Summer of Code 2018 with Debian Project

Qualified for **ACM-ICPC 2018** Kolkata Kanpur Site contest held at UIET Kanpur