# Shanya **Sharma**

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## Education

**Shri Govindram Seksaria Institute of Technology and Science (S.G.S.I.T.S.)**                    *Indore, India*
B.E. IN ELECTRONICS AND INSTRUMENTATION ENGINEERING (GPA: 8.31/10)                    *2014 - 2018*
- Within the top 5 students of the class
- Recipient of CSS Scholarship (2014-2018)

## Publications

2020    **Workshop Paper**, S. Sharma, M. Dey and K. Sinha. Evaluating gender bias in NLI Systems. WDCS Workshop, NeurIPS 2020

2019    **Workshop Paper**, S. Sharma and M. Dey. Assessing viewer's mental health by detecting depression in YouTube videos. AISG Workshop, NeurIPS 2019

2018    **Conference Paper**, M. Tiwary, S. Sharma, P. Mishra, H. El-Sayed, M. Prasad, and D. Puthal. Building scalable mobile edge computing by enhancing quality of services. International Conference on Innovations in Information Technology, 2018

## Experience

**Walmart Labs**                    *Bangalore, India*
SENIOR SOFTWARE ENGINEER                    *Aug 2020 - Present*
- Responsible for end-to-end development of backend services for Return Management systems for Walmart store associates with WCNP as the cloud platform

**SAP Labs**                    *Bangalore, India*
DEVELOPER ASSOCIATE                    *July 2018 – August 2020*
- Developed micro services from scratch for deployment of business objects in various ERP system as part of Test Data Engineering.
- Improved reliability of the Transactional Data Framework by proposing and developing a module to monitor the availability of ERP systems
- Worked on detecting anomalies in the interface connections using Macrobase analytics engine.
- Developed a novel framework to predict user actions with a final accuracy of 78% by analysing patterns in the XHR requests.
- As a member of the Machine Learning group, incorporated Machine Learning in SAP's internal tools, to reduce the manual effort

**Indian Institute of Information Technology**                    *Jabalpur, India*
RESEARCH INTERN                    *May 2017 – July 2017*
- Worked on a generating class-level documentation of given object-oriented code by using micro-patterns under the guidance of Prof. Atul Gupta
- Proposed and modified the parsing approach to improve the detection of the micro patterns. An improvement of minimum 2 relevant micro-patterns was observed for each tested class
- Performed experiments to test the code-coverage and proposed an extension to the list of micro-patterns

## Selected Projects

**Detecting Depression Triggers in YouTube videos**

HTTPS://GITHUB.COM/SHANYAS10/DETECTING-DEPRESSION-THROUGH-YOUTUBE-HISTORY
- Used Long Short-Term Memory (LSTM) networks to understand the video content form the transcripts to identify if a video can trigger depression with an accuracy of 83%
- Proposed a novel method of evaluating comments by analysing the text and mapping to a score that they will obtain on a CES-D scale
- Paper selected at NeurIPS 2019 AI4SG Workshop.
- As an extension, calculated affective scores of videos using the audio-visual feature to analyse the affective pattern generated from the YouTube watching history of an individual to predict their depression severity score

**Fake News Detection during disasters**

HTTPS://GITHUB.COM/SHANYAS10/FAKE-NEWS-DETECTION
- Developed a multi-modal model using BiLSTM-CharCNN and VGG 16 that can detect the credibility of a post by effectively capturing the semantics of the text along with the features of associated piece of multimedia in it

**Real-time facial emotion recognition system** <span style="float:right">*S.G.S.I.T.S.*</span>

HTTPS://GITHUB.COM/SHANYAS10/FACIAL-EMOTION-RECOGNITION-SYSTEM

- Developed a facial emotion classifier using SVM to classify a facial expression as happy, sad or surprised with an accuracy of 73%
- Used Cohn-Kanade dataset for training and evaluation purpose.
- Used Viola Jones Algorithm for facial detection and Local Binary Patterns(LBP) for feature extraction.
- Created an additional evaluation dataset of 100 images by capturing facial expressions of 5 volunteers to calculate the out-of-domain accuracy, which came out to be 68%
- Integrated with Arduino UNO to capture the output signal from MATLAB and display the detected emotion on 16x2 LCD

## Volunteer Experience

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| 2020 | **Open Source Contributor**, COVID Tracing App Simulator, Sub-Project of Peer-to-Peer AI Tracing App delegated by Prof. Yoshua Bengio. |
| 2020 | **Reviewer**, NeurIPS, 2020 |
| 2020 | **Reviewer**, ML4H NeurIPS 2020 |
| 2020 | **Reviewer**, WDCS NeurIPS 2020 |
| 2020 | **Volunteer**, WiML NeurIPS 2020 |
| 2020 | **Reviewer**, ACM Conference on Health, Inference and Learning (CHIL) |
| 2020 | **Community member**, Omdena |
| 2020 | **Volunteer**, ICML 2020 |
| 2020 | **Software Development Volunteer**, DaanMatch |
| 2019 | **Volunteer**, WiML NeurIPS 2019 |
| 2019 | **Reviewer**, ML4H NeurIPS 2019 |
| 2018 | **Data Science Volunteer**, Data For Democracy |

## Honors & Awards

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| 2019 | **Finalist**, SAP 1 Billion Lives Asia Pcaific Regional |
| 2019 | **Most Promising Fresher**, SAP Labs S4HANA Test Engineering |
| 2017 | **615th Place (Global rank)**, Codechef Snackdown pre-elimination round |
| 2017 | **22/5383**, Cognizant MasterCode |
| 2016 | **1st Place**, Codefoster Competitive Coding Competition |

## Invited Talks

**Using Python to analyze YouTube content for depression**

BANGPYPERS <span style="float:right">*August 2019*</span>

- Invited as one of the speakers for a session organized by BangPypers, a community of more than 9,000 Python enthusiasts

## Leadership Roles

**TAFLE**

CO-FOUNDER <span style="float:right">*April 2019 - Dec 2019*</span>

- Co-founded TAFLE, a startup focused on enabling circular economy, as part of SAP's 1 Billion Lives Initiative
- One of the top 5 finalists to present at the APJ level

**Ingenious, S.G.S.I.T.S. Literary Club**

PRESIDENT <span style="float:right">*May 2017-May 2018*</span>

- Conducted and supervised the organization of various literary events including Liter-O-Mania 2017: S.G.S.I.T.S. literary fest and Kavyanjali 2017, a state level hindi poetry competition

**S.G.S.I.T.S. Robotics Club**

COMMITTEE MEMBER <span style="float:right">*May 2015-May 2017*</span>

- Organized various college-level workshops and led the organization of a college-level technical quiz competition.

## Extracurricular Achievements

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|---|---|
| 2019 | **2nd Place**, Chess Tournament, SAP |
| 2016 | **Winner**, Verba Maximus (BITS Hyderabad National Literary Festival) Creative Writing competition |
| 2015 | **Winner**, Liter-O-Mania (S.G.S.I.T.S. Literary Festival) TTT Competition |
| 2014 | **2nd Place**, Inter-Branch Chess Tournament, S.G.S.I.T.S. |