

Shanya Sharma

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WORK EXPERIENCE

WALMART LABS INDIA

Senior Software Engineer

August 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 INDIA

Developer Associate

July 2018 – August 2020

- Full-stack developer- Developed micro services from scratch for deployment of business objects in various ERP system with Cloud Foundry as the cloud platform.
- Worked on detecting anomalies in the interface connections using Median Absolute Deviation and Percentile classifier. **Filed an IDF to patent the same.**
- Proposed and developed a novel framework to predict user actions with a final accuracy of 78% by analysing patterns in the XHR requests. **Filed an IDF for the same.**
- As a member of the Machine Learning group, incorporated Machine Learning in SAP's internal tools, to reduce the manual effort.

IIIT JABALPUR

Research Intern

May 2017 – July 2017

- Worked on a research project to generate automatic class-level documentation of object-oriented code provided in the input.
- Used micro-codes to tag the various elements of the code which were then used for generation of a class level documentation of the code.

DATA FOR DEMOCRACY

Data Science Volunteer

Feb 2019 – Mar 2019

- Worked with Colorado ACLU as a data science volunteer to analyse and visualize data on bail in Colorado to inform proposed legislation in the upcoming state house legislative session.

EDUCATION

2014 – 2018 Electronics and Instrumentation

Bachelor of Engineering (B.E)

SGSITS, Indore, India

CPGA – 8.31/10

May 2014

Senior Secondary

St. Aloysius Sen. Sec. School

GPA – 91.4 (12th, CBSE)

May 2012

High School

St. Aloysius Sen. Sec. School

GPA – 9.4/10 (CBSE)

TECHNICAL SKILLS

Development: Python, Java, C++, SQL, LATEX, ABAP, HTML, CSS, JavaScript.

Artificial Intelligence: Machine Learning, Computer Vision, NLP, Keras, TensorFlow, Numpy, Scikit-Learn, MATLAB.

Database: MySQL, NoSQL, MongoDB

PROJECTS

Evaluating Gender Bias in Natural Language Inference

- Proposed an evaluation methodology by constructing a challenge task to demonstrate that gender bias is exhibited in state-of-the-art fine-tuned Transformer-based NLI model outputs.
- Tested augmentation as an existing debiasing technique and understand its efficacy on various state-of-the-art NLI Models. Paper submitted to ICLR 2021.

Detecting Depression Triggers in YouTube videos

(<https://github.com/thechange/Detecting-Depression-through-YouTube-history>)

- Used Long Short-Term Memory (LSTM) networks to understand the video content from the transcripts to identify if a video can trigger depression with an accuracy of 83%.
- Additionally, we propose a novel method of validating the results by analysing the CESD score of comments.
- Paper selected at NeurIPS 2019 AI4SG Workshop.
- As an extension, we calculate 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 his depression severity score.

Fake News Detection during disasters

(<https://github.com/thechange/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.

PUBLICATIONS

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

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

[3] 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*.

VOLUNTEER EXPERIENCE

- Open Source Contributor, COVIDTracing App Simulator, Sub-Project of Peer-to-Peer AI Tracing App delegated by Prof. Yoshua Bengio.
- Reviewer, NeurIPS, 2020
- Community member, Omdena
- Program Committee member, ML4H NeurIPS 2020
- Volunteer, ICML 2020
- Volunteer, WiML NeurIPS 2019
- Program Committee member, ML4H NeurIPS 2019
- Data Science Volunteer, Data for Democracy

AWARDS

- **1 BILLION LIVES ASIA PACIFIC REGIONAL**
1 Billion Lives, SAP **August 2019**

Among the top 5 teams from more than 200 to have qualified for Asia Pacific Regional of 1 Billion lives which works at using technology for social good
- **MOST PROMISING FRESHER**
SAP Labs S4HANA Test Engineering **July 2019**

Recognised as a catalyst and being the most promising fresher among several candidates that had joined in the year of 2018.
- **615TH**
Codechef **May 2017**

Placed 615th at Codechef Snackdown pre-elimination round 2017(international coding challenge). Qualified for the elimination round.
- **1ST, CODEFOSTER COMPETITIVE CODING COMPETITION**
Codefoster, SGSITS **September 2016**

Topped the leaderboard in a city level competitive coding competition organized by CodeFoster SGSITS.
- **22/5383**
Mastercode challenge, Hackerearth

INVITED TALKS

- **Using Python to analyze YouTube content for depression**
BangPypers **August 2019**

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

COURSEWORK

PERSONAL

- Deep Learning Specialization | Coursera
- Machine Learning | Coursera
- Introduction to Psychology | Coursera
- Natural Language Processing by Dan Jurafsky and Chris Manning

UNDERGRADUATE

- Data Structures
- Operating Systems
- Digital Computer Organization
- Intelligent Instruments