Pinkesh Badjatiya

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Education

2018 - 2019 — MS by RESEARCH in Computer Science and Engineering
International Institute of Information Technology, Hyderabad (IIIT Hyderabad)

- **Specialization:** Information Retrieval, Natural Language Processing, Machine Learning, Deep Learning
- Best Poster Award (WWW'17), ECIR Student Travel Grant, Microsoft Research Travel Grant, WWW Student Travel Grant, Dean Research Award
- **Advisor:** Dr. Vasudeva Varma (IIIT Hyderabad); Dr. Manish Gupta (Microsoft India R&D)

2014 - 2018 — B.Tech in Computer Science and Engineering
International Institute of Information Technology, Hyderabad (IIIT Hyderabad)
CGPA: 8.71 / 10

Experience

June '19 - Current — **Software Development Engineer 2** — Adobe
I am currently working with the **MDSR Lab in Adobe** as a *AI Researcher* where I primarily work with Reinforcement Learning and Computer Vision. I also work on productionizing ML algorithms.

Current — **External Reviewer** for CODS-COMAD 2021, ICWSM 2019, ICON 2019, ALW 2019

Sept '18 - Current — **Research Assistant** — IIIT Hyderabad
Currently working on **Identification of Discriminatory Content on Social Media** with Prof. Vasudeva Varma (IIIT-Hyderabad) and Prof. Manish Gupta (Principal Applied Scientist, Microsoft India R&D) at Information Retrieval & Extraction Lab (iREL), IIIT Hyderabad.

Jan '19 - April '19 — **Machine Learning Research Intern** — Adobe
Working towards solving social dilemmas using cooperation for Multi-agent setting using Deep Reinforcement Learning using Model-based Value functions.

May '18 - July '18 — **Software Engineer Intern** — GoldmanSachs
Designed an algorithmic solution using constraint optimization in **java** and **scala**. Used TDD with OOP concepts and Design patterns. Performed error analysis and deployed to production.

Sep '17 - Mar '18 — **Data Analytics/Site Reliability Engineer Intern** — T-Hub, Hyderabad
• Developed analytics from the reports produced by ∼280 co-working startups incubated at T-Hub.
• Analyzed the user traffic flows to improve the site experience and generate weekly statistics for internal-analysis using **Google Analytics** and **Python**

Aug '16 - Dec '18 — **Teaching Assistant** — IIIT Hyderabad

- Information Retrieval & Extraction *(Monsoon 2018)*
- NLP Applications *(Spring 2018)*
- Statistical Methods in Artificial Intelligence *(Monsoon 2017)*
- Data Structures *(Spring 2017)*
- ITWS-1 *(Monsoon 2016)*

Nov '16 - Jan '17 — **Google Code-In '16 Mentor** — MetaBrainz
Mentored students working on the *ListenBrainz* project. Tasks involved creating tasks of varying difficulty levels and evaluating their submissions.

Jul '16 - Jun '17 (11 months) — **System Administrator and Organizer** — Felicity '17, IIIT Hyderabad
Felicity Threads is the annual technical fest of IIIT Hyderabad.

Apr '16 - Aug '16 (4 months) — **Google Summer Of Code (GSoC) '16 Intern** — MetaBrainz
• Created a proxy submission **Flask** API compatible with Last.fm scrobblers.
• Added scrobbling support for desktop clients with support for tracking currently playing song in **Redis**.
• Blog: https://blog.musicbrainz.org/2016/08/23/gsoc-16-listenbrainz-fun/

Publications

November 2019 — **Multi-label Categorization of Accounts of Sexism using a Neural Framework**
Pulkit Parikh, Harika Abburi, **Pinkesh Badjatiya**, Radhika Krishnan, Niyati Chhaya (Adobe Research, India), Manish Gupta (Microsoft, India), Vasudeva Varma
In proceedings of Conference on Empirical Methods in Natural Language Processing (EMNLP), 2019 (long paper)

October 2018 — **Stereotypical bias removal using Knowledge-based Generalization for Abuse Detection Task**
Pinkesh Badjatiya, Manish Gupta (Microsoft, India), Vasudeva Varma (IIIT-H)
In proceedings of The World Wide Web Conference (TheWebConf) 2019 (long paper)

December 2017 — **Attention-based Neural Text Segmentation** — *ECIR 2018*
Pinkesh Badjatiya, Litton J Kurisinkel, Manish Gupta (Microsoft, India), Vasudeva Varma (IIIT-H)
In proceedings of European Conference on Information Retrieval (ECIR), 2018 (long paper)

April 2017 | **Deep Learning for Hate Speech Detection in Tweets** *WWW 2017*
Pinkesh Badjatiya, Shashank Gupta, Manish Gupta (Microsoft, India), Vasudeva Varma (IIIT-H)
In proceedings of the International World Wide Web (WWW) Conference, 2017
• Received **Best Poster Presentation** Award at **WWW'17, Perth, Australia**
• Our work received significant print media coverage: https://bit.ly/hatespeech-iiith-best-poster

Awards, Grants, Honors and Achievements

2019 | **TheWebConf Student travel grant** for attending TheWebConf '19 conference in US. San Francisco, USA

2019 | **Microsoft Research (MSR) Travel Grant** for attending TheWebConf'19 conference in US. San Francisco, USA

2018 | **Dean's Research Award** IIIT Hyderabad
Awarded in semesters *Monsoon 17* & *Monsoon 18* for obtaining research publications during undergraduate studies.

2018 | **Dean's Merit List for academic excellence** IIIT Hyderabad
Selected in Dean's List in semesters *Monsoon 15*, *Monsoon 17* & *Spring 18*. Awarded to Top 5% of the class.

2018 | **ECIR-Grenoble travel grant** for attending ECIR'18 conference in France. Grenoble, France

2017 | Ranked **3rd** in the **Big Data Challenge**
Department of Higher & Technical Education Government of Rajasthan, India
1741 teams participated from all across India. Awarded prize by the Vasundhara Raje, Chief Minister of Rajasthan

2017 | **Best Poster Presentation Award** WWW'17, Perth, Australia
26th International World Wide Web Conference, 2017
Received award for publication *Deep Learning For Hate Speech Detection in Tweets* at the WWW'17 Conference, Perth, Australia.

2016 | My team *SourceCode* ranked **80th** in the 2016 **ACM-ICPC** Asia Chennai Regional Contest, **67th** in the Asia-Chennai '16 Online Round and **107th** in the Asia Amritapuri '16 Online Round.

2015 | Ranked **2nd** in *Microsoft Code.Fun.Do* Hackathon Microsoft, Hyderabad

2014 | **AIR 3313/1.4 million (All India Rank) in JEE-Advance**

2014 | **AIR 7044/1.4 million (All India Rank) in JEE-Mains (State Rank-258)**

Major Projects

Wiki Search Engine | **Search Engine for indexing & querying entire Wikipedia dump**
• Built efficient positional index for 64GB of Wikipedia dump for supporting multi-word queries.
• Field queries with execution time **<5 secs**. Ranking results based on relevance, field and term scores.

d.TF-IDF | **Distributed TF-IDF for documents**
Developed a master-slave distributed architecture using **C++** using **MPI interface** for computing TF-IDF scores for a set of documents to equally distribute the load across slaves.

Tic-Tac-Toe AI | **A game bot for modified version of tic-tac-toe game**
• Developed a game bot for Ultimate Tic-Toe-Game using **Minimax Algorithm** & **Alpha-Beta pruning**.

PeerNet | **P2P file sync over TCP/UDP protocols with integrity checks**
• A peer-to-peer file sharing application capable of sharing files using TCP/UDP protocols along with integrity check using SHA256 checksum. Supports remote directory listing along with complete directory sync.
• Built in C using socket programming and UNIX system calls.

Nex | **Mini multi-threaded proxy web server + HTTP web server**
• Capable of serving html/images/audio/videos and directory listing or used as a proxy server.
• Other features: Template injection, banned hosts, conditional header processing, HTTP Basic Authentication.

Xv6 Priority Scheduler | **A scheduler for xv6 operating system based on priority of processes**
• Created a priority based scheduler in place of round robin scheduler.
• Added a new system call **set_priority()** to change the priority of processes.

C Shell | **A shell built in c using POSIX standards and thread programming**
• A shell in C using knowledge of threads, forking, signals, process groups, system calls and other OS concepts.
• Features include piping, file redirection, process job management, foreground/background processes, tracking background processes, signal handling, variable assigning, and built-in commands.

Technical Skills

• Proficiency: **Advanced**, Intermediate, Basic

Programming Languages: **Python**, **C++ (STL)**, **C**, java, Scala
OS: **GNU/Linux** ♡, **Microsoft Windows**
Scripting: **Python**, **Bash**
Web Technologies: **HTML**, **CSS**, **Flask**, JavaScript, Web2py, Django
Machine/Deep Learning: **TensorFlow**, **PyTorch**, **numpy**, **sklearn**, **pandas**, theano

Others	**MySQL**, **Git(VCS)**, **Markdown**, **apache2**, **nginx**, LaTeX
Interests	Machine Learning, Natural Language Processing, Deep Learning, Reinforcement Learning, Algorithms, Operating Systems

Updated on August 21, 2020