

Gautam Choudhary

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Education

- 2022–2024 **M.S., Computer Science**, *Purdue University, USA*.
- 2015–2019 **B.Tech. Computer Science & Engineering**, *Indian Institute of Technology, Roorkee*.
GPA: 9.223/10.0 (Class Rank: 3/81)
- 2014–2015 **Senior Secondary, Class 12**, *Lav Kush Model School, Sri Ganganagar*.
Percentage: 95.6/100 (Highest District Region Score)
- 2012–2013 **Secondary, Class 10**, *Nosegay Public School, Sri Ganganagar*.
CGPA: 10.0/10.0



Research Interests



- Machine Learning (ML); Data Mining; User Modeling; Graph Representation Learning; Natural Language Processing (NLP)

Professional Experience

- Jun'19– **Research Associate 2**, *Adobe Research, India*, (Full Time).
Jul'22
 - Brainstorming and formulating new research problems with industrial use cases around marketing science, decision analysis, user experience, web analytics, etc.
 - Prototyping solutions using ML techniques from data mining, representation learning, user modeling, etc.
 - Writing academic publications for top-tier conference venues (and filing patents).
 - Co-mentoring 6-8 undergraduate students every year as part of our research internship program.
- May'18– **Research Intern**, *Adobe Research, India*.
Jul'18
 - Worked in the domain of NLP on generating useful insights and visualizations for assisting authors to quickly grasp user feedback (comments) associated with their documents (blogs).
 - Curated a dataset for a text classification problem and proposed a novel hierarchical text classifier.
- Nov'18– **Javascript Developer Intern**, *JS Tigers*.
Jan'19 Worked on developing and adding new functionalities to a CRM Web App. Also improved existing codebase by fixing bugs involving both frontend and backend.
- Dec'17– **Backend Web Developer Intern**, *Saarathi AI*.
Jan'18 Built web and mobile applications for an AI-based Tech Startup offering Chatbot services. Involved in full-stack development to integrate product features.
- Dec'15– **Educational Content Developer Intern**, *Quiziential*.
Jan'16 Developed question bank in the domain of Science, Mathematics, and General Aptitude along with explanations for an educational platform.

Publications



3. **ReAct: A Review Comment Dataset for Actionability (and more)**, *In International conference on Web Information Systems Engineering (WISE)*, 2021,  Paper,  Data.
Gautam Choudhary, Natwar Modani, Nitish Maurya

2. **Transport-Free Module Binding for Sample Preparation using Microfluidic Fully Programmable Valve Arrays**, *In Design, Automation & Test in Europe Conference & Exhibition (DATE)*, 2020,  Paper.
Gautam Choudhary, Sandeep Pal, Debraj Kundu, Sukanta Bhattacharjee, Shigeru Yamashita, Bing Li, Ulf Schlichtmann, Sudip Roy
1. **Understanding Blogs through the Lens of Readers' Comments**, *In Computación y Sistemas (CICLing)*, 2019,  Paper.
Abhilasha Sancheti, Natwar Modani, Gautam Choudhary, Chintha Priyadarshini, Sai Sandeep Moparthi

Patents

6. **Generating Node Embeddings for Multiple Roles**, *US Patent Application 17/846,160*, Jun, 2022.
Ryan Rossi, Iftikhar Ahamath Burhanuddin, Gautam Choudhary, Fan Du, Eunye Koh
5. **Identifying Bot Activity Using Topology-Aware Techniques**, *US Patent Application 17/709,615*, Mar, 2022.
Gautam Choudhary, Sk Izajur Rahaman, Siba Panigrahi, Prithvi Bhutani, Manoj Kilaru, Kanishk Singh, Iftikhar Ahamath Burhanuddin, Aditi Singhanian
4. **Artificial Intelligence Approaches For Predicting Conversion Activity Probability Scores And Key Personas For Target Entities**, *US Patent Application 17/339,700*, Jun, 2021.
Liana Vagharshakian, Atanu R. Sinha, Gautam Choudhary, Camille Girabawe, Omar Rahman, Scott Trafton, Vivek Sinha
3. **Determining Digital Personas Utilizing Data-Driven Analytics**, *US Patent Application 17/189,681*, Feb, 2021.
Gautam Choudhary, Iftikhar Ahamath Burhanuddin
2. **Machine-Learning Systems For Simulating Collaborative Behavior By Interacting Users Within A Group**, *US Patent Application 17/171,365*, Feb, 2021.
Atanu Sinha, Gautam Choudhary, Mansi Agarwal, Shivansh Bindal, Abhishek Pande, Camille Girabawe
1. **Expressive Text-To-Speech Utilizing Contextual Word-Level Style Tokens**, *US Patent Application 16/934,836*, Jul, 2020.
Sumit Shekhar, Abhilasha Sancheti, Gautam Choudhary, Santhosh Kumar, Shubhanshu Agarwal, Rahul Saxena

Selected Research Projects

- Aug'19– Jul'22 **Persona Learning**, *Advisors: Dr. Iftikhar Ahamath Burhanuddin and Dr. Ryan A. Rossi, Adobe Research*.
Motivated by user modeling concepts in HCI, we investigate the research problem of identifying and learning user *personas* from historical data by applying data mining and graph-based deep learning techniques.
- May'20– Jun'21 **B2B: Account Scoring**, *Advisor: Dr. Atanu R. Sinha, Adobe Research*,  Newsletter.
This project involved modeling the conversion likelihood of business accounts in a B2B scenario using deep learning architectures. This also got featured in *Adobe Summit Sneaks 2021* ( Video) - Adobe's worldwide flagship Digital Experience Conference.
- May'20– Aug'21 **Actionable Review Comments**, *Advisor: Natwar Modani, Adobe Research*.
The project involved proposing a taxonomy for textual review comments along with their classification using natural language processing techniques. Also released a text-domain dataset.
- Aug'18– May'19 **Design Automation for Microfluidic Devices**, *Advisor: Dr. Sudip Roy, IIT Roorkee*.
We proposed a design automation approach for sample preparation of bioassays by developing a parallel and efficient algorithm for reagent placement on a 2D grid (Programmable Microfluidic Device).

Honors and Awards

- 2019 Winner in Web Technologies Project as part of New College Graduate Bootcamp, Adobe Inc.
- 2019 Best B.Tech. Project Award in Computer Science Department, IIT Roorkee
- 2015–2019 Merit-cum-Means (MCM) Scholarship, IIT Roorkee
- 2015 IIT-JEE Advance All India Rank (AIR) 1416 amongst $\sim 150k+$ candidates (Top 1%)
- 2015 District Region Topper in Class 12, Sri Ganganagar
- 2015 Awarded Kishore Vaigyanik Protsahan Yojana (KVPY) Fellowship, Govt. of India
- 2014 Secured All India Rank (AIR) 17 in National Science Olympiad (NSO)

Technical Skills

- Languages Python, C++, JAVA, HTML, CSS, Javascript, \LaTeX
- Frameworks PyTorch, Deep Graph Library, Keras, TensorFlow, Flask, Angular, NodeJS
- Tools/OS Git, Visual Studio, Android Studio / LINUX (Ubuntu), MacOS, Windows

Service

- 2019–2022 **Member of Recruitment Team | Adobe Research**, Volunteered for recruitment panel activities across various programs for empowering female students (Women-in-Technology Scholarship), students from underrepresented communities (GEM Fellowship), etc. to pursue their education.
- 2019–2021 **Volunteer at Adobe Create Change Day | Adobe Inc**, Actively engaged with Adobe's Corporate Social Responsibility (CSR) Team and volunteered for activities like fundraising for cancer patients, supporting NGOs and local Govts., helping shelter home children, etc.
- 2018–2019 **Student Mentorship Program | IIT Roorkee**, Mentored 7 freshman juniors in their academic and non-academic affairs as part of a mentorship program at IIT Roorkee.
- 2015–2016 **National Service Scheme (NSS) | IIT Roorkee**, Volunteered in social activities including organizing Blood Donation Camps and providing free tutorship to financially poor children.