

## EDUCATION

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- **Indian Institute of Technology** Roorkee, India  
*B.Tech in Electrical Engineering; GPA: 9.905/10* July 2015 – May 2019
- **M.M. Public School** Delhi, India  
*All India Secondary School Certificate Examination; Percentage: 97.6/100* April 2013 – March 2015

## EXPERIENCE

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- **Adobe Research** Bengaluru, India  
*Research Scientist/Engineer* Sep 2019 - Present
- **Adobe Research** Bengaluru, India  
*Research Intern* May 2018 - July 2018
- **AGH University of Science and Technology** Krakow, Poland  
*Research Assistant* June 2017 - July 2017

## SCHOLASTIC ACHIEVEMENTS

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- **Institute Silver Medal:** Awarded the prestigious medal by President of India for exceptional academic performance.
- **Department Gold Medal:** Highest CPI in entire department among all specializations with 150+ students.
- **Joint Entrance Examination:** All India Rank - 156 among 1.4 Million Candidates in JEE Main - 2015.
- **KVPY Fellow:** Awarded KVPY Fellowship by the Department of Science and Technology , Government of India.
- **Awards:** Awarded Shakuntala Devi Prize and 1988 Batch Alumni Prize for exceptional academic performance.
- **Awards:** Nominated Twice for OP Jindal Award; Once for IITR Heritage Excellence Award; Once for Encore Award

## PROGRAMMING SKILLS

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- **Languages:** Python, C++, Java **Technologies:** MATLAB, NLP, Computer Vision, DL, RL

## PUBLICATIONS

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- **ICPR 2021:** *Summarization of Chart Info Results*  
Authors: Kenny Davila, **Hrituraj Singh**, Sumit Shekhar, Christopher Tensmeyer
- **EMNLP 2020:** *STL-CQA: Structure-based Transformers with Localization and Encoding for Chart Question Answering*  
Authors: **Hrituraj Singh**, Sumit Shekhar
- **EMNLP Findings 2020:** *Incorporating Stylistic Lexical Preferences in Generative Language Models*  
Authors: **Hrituraj Singh**, Gaurav Verma, Balaji Vasani Srinivasan
- **CICLING 2019:** *Generating Summaries tailored to target characteristics*  
Authors: Kushal Chawla, **Hrituraj Singh**, Arijit Pramanik, Mithlesh Kumar, Balaji Vasani Srinivasan.
- **IEEE TENCON 2019:** *Multisurface Proximal SVM Decision Trees For Heart Disease Classification*  
Authors: **Hrituraj Singh**, N.V. Navaneeth, G.N. Pillai

## PATENTS

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- **[2020]:** *Modality Agnostic Information Retrieval from Documents*  
*Filed in Dec 2020*  
Inventors: **Hrituraj Singh**, Aishwarya Aggarwal, Jatin Lamba, Anshul Nasery, Denil Mehta, Balaji Vasani Srinivasan
- **[2020]:** *A Method for Multimodal Structure-based Attention for Interpretable Question/Answering on Data Charts*  
*Filed in Nov 2020*  
Inventors: **Hrituraj Singh**, Sumit Shekhar
- **[2019]:** *Generating Summary Content tuned to a target characteristic using word generation model*  
*Filed in Jan 2019*  
Inventors: Balaji Vasani Srinivasan, Kushal Chawla, Mithlesh Kumar, **Hrituraj Singh**, Arijit Pramanik










## PREPRINTS

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- **[2021]:** *MIMOQA: Multimodal Input Multimodal Output Question Answering*  
*Under Review in NAACL 2021*  
Authors: **Hrituraj Singh**, Denil Mehta, Anshul Nasery, Jatin Lamba, Aishwarya Aggarwal, Balaji Vasani Srinivasan
- **[2021]:** *Semantically aware Image Extrapolation by Addition of New Objects*  
*Under Review in CVPR 2021*  
Authors: Bholeshwar Khurana, Soumya Dash\*, Abhishek Bhatia\*, **Hrituraj Singh**, Aniruddha Mahapatra, Kuldeep Kulkarni
- **[2021]:** *DRAG: Director-Generator Language Modelling Framework for Non-Parallel Author Stylized Rewriting*  
*Under Review in EACL 2021*  
Authors: **Hrituraj Singh**, Gaurav Verma, Aparna Garimella, Balaji Vasani Srinivasan
- **[2021]:** *Entity Decoupling and Variable Alignment for First Order Logic Parsing*  
*Under Review in EACL 2021*  
Authors: **Hrituraj Singh**, Milan Aggarwal, Balaji Krishnamurthy

## PROJECTS

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- **Multisurface Proximal SVM Boosted Decision Trees**  Roorkee, India  
*EED IIT Roorkee* Jan 2019 - April 2019
- **Brain Tumor Segmentation using Deep Learning**  Roorkee, India  
*Artificial Intelligence and Electronics Society, IITR* May 2017 - Dec 2017
- **Electrical Load Forecasting using LSTM**  Roorkee, India  
*Industry Oriented Project, EED IIT Roorkee* May 2017 - Dec 2017
- **Recommendation System for Choosing Electives**  Roorkee, India  
*Artificial Intelligence and Electronics Society, IITR* Jan 2017 - March 2017
- **Mini Projects**  
*Independent Projects* Jan 2017 - Present
  - **Pixel CNN:** A naive implementation of PixelCNN in Pytorch as described in the paper by A Oord et. al 
  - **Pytorch Transformer:** Implementation of Transformer Network by Vaswani et al. in Pytorch library 
  - **LSTM Text Generator:** Simple LSTM Based Text Generator trained using Plain text file purely in numpy 
  - **Particle Swarm Optimization:** A naive implementation of PSO in Python with Animation of Swarms 
  - **RajFlow:** A naive tensorflow/Pytorch like small library in pure numpy for CNNs incl. backpropagation 

## VOLUNTEERING

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- **[2019]:** *Volunteered as Teaching Assistant*  
*Undergraduate Course on Machine Learning*  
Supervised the lab work while solving the doubts of an undergrad class of 30 students, designed and conducted Viva
- **[2017-18]:** *Volunteered as Meal Server*  
*For Robinhood Army Local IIT Roorkee Chapter*  
Distributed the extra food cooked in the hostel messes of IIT Roorkee to nearby poor children from slums of Roorkee
- **[2015-2016]:** *Volunteered as Teacher*  
*For National Service Scheme*  
Taught financially poor children high school mathematics and science for free, Conducted workshops for practical learning

## MISCELLANEOUS

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- **Youth Delegation:** Selected by the Ministry of Youth Affairs and Sports to represent Indian in South Korea
- **NGO:** Cofounded the Local Chapter of Robinhood Army at IIT Roorkee to distribute food among homeless kids
- **Mentorship:** Co-founded in a team the flagship Student mentorship programme of IIT Roorkee in 2017
- **Entrepreneurship:** Actively initiated, in a team of Entrepreneurship cell, the first ever E-Summit of IIT Roorkee
- **HPAIR:** Selected for Harvard Project for Asian and International Relations as one of 300 delegates from around globe
- **Tsinghua University:** Accepted for Experiencing China Summers Program by Tsinghua University, China.
- **United Nations:** Selected for the United Nations Youth Assembly 2017 held at New York, USA.
- **IIM Lucknow:** Interned under Prof. Sameer Mathur performing analysis on a range of marketing issues
- **Eagerbug:** Interned for a period of month as a content writer in an emerging startup for JEE aspirants