

EDUCATION

- **Georgia Institute of Technology** Atlanta, USA
Masters in Computer Science Aug. 2019 - Present
- **JSS Academy Of Technical Education** Noida, India
Bachelor of Technology in Computer Science and Engineering; Aggregate: 80.44% with Hons. Aug. 2014 - June 2018

PROJECTS

- **EvalAI**: Built an open source platform for evaluating and benchmarking AI models. We have hosted **45+ AI challenges** with **5500+ users**, who have created **45,000+ submissions**. The project is open source with **90+ contributors**, **800+ stars**, **400+ forks** and **1.2+ million pageviews**. Some of the organizations using it are **Google, Facebook, IBM, eBay etc.** and research labs from **Stanford, CMU, Georgia Tech, MIT etc.** also use it.
- **Fabrik**: An online collaborative platform to build, visualize and train deep learning models via a simple drag-and-drop interface in web browser. It has **45+ open source contributors**, **1000+ stars**, **230+ forks**.
- **Visual Question Answering Demo (VQA)**: A web demo for VQA task in which given an image and a natural language question about the image, the AI model provides an accurate natural language answer in real-time.
- **Visual Chatbot Demo**: A chatbot based on visual dialog model in which given an image, a dialog history, and a follow-up question about image, the chatbot answers the next question.
- **Trick or TReAT: Thematic Reinforcement for Artistic Typography Web Demo**
Given an input word (e.g. exam) and a theme (e.g. education), the individual letters of the input word are replaced by cliparts relevant to the theme which visually resemble the letters.
- **JSS InfoConnect**: Developed and introduced an officially recognized web platform to act as an interaction medium among all students, faculties, and management staff in college. It serves **1000+ daily active users**, **20,000+ overall users**, **20,000+ notices** and **more than 3 million page views**.
- **Zealicon Registration System**: **Team Lead** to digitize the undergraduate college user registration system for annual techno-cultural fest which consists of **2000+ participant registrations** every year.

PUBLICATIONS

- **EvalAI: Towards Better Evaluation Systems for AI Agents** **AI Systems Workshop (SOSP 2019)**
D. Yadav, **R. Jain**, H. Agrawal, P. Chattopadhyay, T. Singh, A. Jain, S. Singh, S. Lee, D. Batra
- **nocaps: novel object captioning at scale** **ICCV 2019**
H. Agrawal*, K. Desai*, Y. Wang, X. Chen, **R. Jain**, M. Johnson, D. Batra, D. Parikh, S. Lee, P. Anderson
- **Evaluating visual and text explanations in an interactive, goal-driven human-AI task** *In Submission*
A. Chandrasekaran, **R. Jain**, K. Desai, K. Moffitt, J. Miller, D. Diller, B. Ferguson, D. Parikh
- **Dialog without Dialog: Learning Image-Discriminative Dialog Policies from Single-Shot Question Answering Data** *In Submission*
M. Cogswell*, J. Lu*, **R. Jain**, S. Lee, D. Batra, D. Parikh
** refers to equal contribution*

EXPERIENCE

- **Georgia Institute of Technology** Atlanta, GA
Graduate Research Assistant advised by Dr. Dhruv Batra and Dr. Devi Parikh Aug. 2019 - Present
 - **EvalAI**: Building large scale software pipelines to evaluate code of machine learning models in real-time.
 - **GuessWhich**: Evaluating the role of interpretable explanations towards making a model predictable to a human. We are studying if explanations from model helps humans to predict the models behavior.
- **CloudCV (Open Source Organization)** Atlanta, GA
Team Lead Jan 2019 - Present
 - Leads a team of **15+ contributors** to actively maintain CloudCV Projects which aims to make AI research more reproducible.

- Google Summer of Code (GSoC) '17, '18, '19** Atlanta, GA
Student Developer, Organization Mentor, Organization Administrator *May. 2017 - August 2019*
 - **2019:** Led a team of 10+ mentors and students to accomplish tasks proposed in **GSoC Proposal 2019**.
 - **2018:** Mentor a student to design a command line tool (**evalai-cli**) for EvalAI which lets the participants to install and use evalai as a python package.
 - **2017:** Selected as a GSoC student to build **new features** for hosting AI challenges in streamlined manner, implemented several analytic features for both participants and hosts in EvalAI.
- Google Code-In (GCI) '17, '18, '19** Atlanta, GA
Organization Mentor(1), Organization Administrator(2) *Oct. 2017 - Present*
 - **2019:** Leading a team of 10+ mentors on open source projects **EvalAI**, **EvalAI-cli**, **EvalAI-ngx**.
 - **2018:** Led a team of 10+ mentors to help high school students on open source projects **EvalAI**, **Fabrik**.
 - **2017:** Mentored students to ramp up in open source projects in back-end and front-end technologies.
- Computer Vision, Machine Learning and Perception Lab, Georgia Tech** Atlanta, GA
Visiting Research Scholar advised by Dr. Dhruv Batra and Dr. Devi Parikh *Aug. 2018 - June 2019*
 - **nocaps:** Developed first of its kind large-scale benchmark for Novel Object Captioning, consisting of **166,100** captions describing **15,100** images containing more than **500** objects, out of which more than **400** objects are never described in COCO captions dataset.
- Python India (Junction Project)** Noida, India
Open Source Contributor *July 2016 - Oct. 2016*
 - Implemented several features in the project including the feature of creating and managing users profile in the software.
- iAugmentor Labs** Gurgaon, India
Software Development Internship *June. 2016 - August 2016*
 - Responsible for developing a product which takes a video (an answer of a job interview question) as an input and outputs the accuracy on smiling behavior of the user by training an SVM classifier.
 - Implemented a web-based prototype for our trained model to present it to clients.
- Nibble Computer Society** Noida, India
Organizing Member *Feb. 2015 - June 2018*
 - Organized multiple code labs, seminars, workshops on OOPs, Advanced C, C++, Google Summer of Code, Git etc. and mentored 30+ undergraduate students on software development. I was also responsible for organizing college's annual techno-cultural fest Zealicon.

PROGRAMMING SKILLS

- **Languages:** Python, C, C++, Javascript
- **Frameworks:** Django, Flask, PyTest, Celery, RabbitMQ, Scrapy, AngularJS, PyTorch
- **DevOps:** Docker, Amazon Web Services, Google Cloud
- **Version Control:** Git
- **Human Computation:** Amazon Mechanical Turk
- **Databases:** MySQL, PostgreSQL, Redis

FELLOWSHIP AND AWARDS

- Travel Scholarship for **Google Summer of Code Mentor's Summit, '18 and '19**
- Travel Scholarship for **Google Code In Summit, '18**
- Winner, **SHE Hacks Hackathon, '16**
- **Governer Award** recipient, '10

EXTRA CURRICULAR ACTIVITIES

- **Co-organizer**, **Visual Dialog Challenge, CVPR, 2020**
- Presented EvalAI in **Habitat Workshop, CVPR 2019**
- **Co-organizer**, **Visual Question Answering and Dialog Workshop, CVPR, 2019**
- **Co-organizer**, **Visual Dialog Challenge, CVPR, 2019**