

## EDUCATION

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- **Georgia Tech** Atlanta, GA  
*Master of Science in Computer Science; Current GPA: 4.0/4.0* Aug. 2017 – Dec. 2018 (Expected)
- **JSS Academy of Technical Education** Noida, India  
*Bachelor of Engineering in Computer Science and Engineering; Aggregate: 78% with Hons.* Aug. 2012 – Jun. 2016

## FELLOWSHIP AND AWARDS

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- **Snap Research Scholarship recipient**, 2017
- Winner, **VT Hacks**, Virginia Tech, 2016
- Travel Scholarship for **Google Summer of Code Mentor Summit 2016 and 2017**
- **National Means Cum-Merit Scholarship** recipient (2009 - 2012)
- **Prime Minister Scholarship Scheme** recipient (2012 - 2016)
- Winner, **Cassiopeian Wars (Windows Mobile App. Development Hackathon)**, 2014

## EXPERIENCE

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- **Snap Inc.** Los Angeles, CA  
*Research Intern* May 2018 - Present  
Building scalable end-to-end platform to train, test, and visualize machine learning algorithms on massive amounts of visual data.
- **CloudCV** Atlanta, GA  
*Team Lead* Jun. 2016 - Present  
Actively maintain CloudCV Project which aims to make AI research more reproducible. Responsible for the design, development and maintenance of projects like Origami, EvalAI and Fabrik that enable researchers to build, compare and share start-of-the-algorithms.
- **Georgia Institute of Technology** Atlanta, GA  
*Graduate Research Assistant* Aug. 2017 - Present  
Working with Dr. Dhruv Batra and Dr. Devi Parikh on the problem of evaluation of AI agents for different vision and language tasks such as Visual Question Answering (VQA), and Visual Dialog etc.
- **Machine Learning and Perception Lab, Virginia Tech** Blacksburg, VA  
*Research Intern* June 2016 - May 2017  
Worked with Dr. Dhruv Batra and Dr. Devi Parikh at the intersection of Software Engineering and Deep Learning for solving problems in vision and language space.  
**Visual Dialog:** Proposed a novel task with dataset that requires an AI agent to hold a meaningful dialog with humans in natural, conversational language about visual content.  
**Evaluating Visual Conversational Agents Via Human-AI games:** Developed GuessWhich, a cooperative image guessing game played by a human and a visual dialog agent, to evaluate how progress in AI-AI teams translates to a human-AI team.  
**Towards Theory of AIs Mind:** Studied the ability and extent to which humans can be trained to better predict the behavior of an AI in the specific context of VQA, and the role explanation modalities play in this process.
- **Google Summer of Code (GSoC) 2015, 2016, 2017, and 2018** Atlanta, GA  
*Student Developer, Organization Mentor, Organization Administrator* Mar. 2015 - Present  
**2015:** Selected as GSoC student where I integrated NVIDIA's Deep Learning Framework DIGITS to provide workspaces for the researchers.  
**2016:** Served as GSoC Mentor where I mentored 2 students during the summer.  
**2017,18:** Served as Organization Administrator where I was responsible for planning, design and development of projects along with mentoring students.

- Cityflo** Mumbai, India  
*Software Development Internship* *Dec. 2015 - Feb 2016*  
 Responsible for setting up an Test Driven Development for Continuous Integrations in the backend codebase which helped the whole software engineering team to spend more time on building new features rather than maintaining and fixing bugs and issues.
- Siftr Labs** Noida, India  
*Product Development Internship* *Sep. 2015 - Dec 2015*  
 Developed an Android Application which communicates with beacons (Low energy Bluetooth devices) for indoor navigation in big malls.
- Fratmart** Noida, India  
*Backend Developer* *Aug. 2014 - Dec 2014*  
 Started a venture when I was a sophomore. Responsible for the development of the whole product from scratch, managing the server, database management and other backend scripting tasks.

## PUBLICATIONS

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- Evaluating Visual Conversational Agents via Cooperative Human-AI Games**  
 P. Chattopadhyay\*, **D. Yadav\***, V. Prabhu, A. Chandrasekaran, A. Das, S. Lee, D. Batra, D. Parikh  
*AAAI Conference on Human Computation and Crowdsourcing (HCOMP) 2017, Oral*  
 (\* denotes equal contribution)
- Visual Dialog [visualdialog.org]**  
 A. Das, S. Kottur, K. Gupta, A. Singh, **D. Yadav**, J.M.F. Moura, D. Parikh, D. Batra  
*Computer Vision and Pattern Recognition (CVPR) 2017, Spotlight*
- It Takes Two to Tango: Towards Theory of AI's Mind**  
 A. Chandrasekaran\*, **D. Yadav\***, P. Chattopadhyay\*, V. Prabhu\*, D. Parikh  
*Chalearn Looking at People Workshop, (CVPR) 2017*  
 (\* denotes equal contribution)

## SELECTED PROJECTS

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- EvalAI [evalai.cloudcv.org]**  
 Open source platform to create, collaborate and participate in the AI Challenges organized around the globe;  
**70+ open source contributors; 1700+ issues & pull requests; 450+ stars; 200+ forks**
- Fabrik: Build, visualize, and design neural nets in browser**  
 Fabrik is an online collaborative platform to build, visualize and train deep learning models via a simple drag-and-drop interface; **30+ open source contributors; 850+ stars; 170+ forks**
- Origami: Artificial Intelligence as a Service [origami.cloudcv.org]**  
 Origami is an AI-as-a-service that allows researchers to easily convert their deep learning models into an online service that is widely accessible to everyone without the need to setup the infrastructure, resolve the dependencies, and build a web service around the deep learning model.
- Visual Chatbot: A chatbot that can see [visualchatbot.cloudcv.org]**  
 Given an image, dialog history, and a follow-up question about image, the chatbot answers the next question
- Grad-CAM Demo [gradcam.cloudcv.org]**  
 Visual Explanations from Deep Networks via Gradient-based Localization
- Visual Question Answering (VQA) Demo [vqa.cloudcv.org]**  
 Given an image, a question related to that image, the model will predict an answer
- InfoConnect [jssaten.org.in]**  
 Student-Faculty interaction platform; 20,000+ users; 20,000+ notices uploaded; 5000+ daily active users

## JOURNAL ARTICLES

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- **Visual Dialog** [[visualdialog.org](http://visualdialog.org)]

A. Das, S. Kottur, K. Gupta, A. Singh, **D. Yadav**, J.M.F. Moura, D. Parikh, D. Batra

*IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI) 2018*

## TEACHING EXPERIENCE

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- **ECE 5424: Introduction to Machine Learning**

Fall 2016

- *Teaching Assistant with Dr. Stefan Lee*

## SELECTED COURSEWORK

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- Deep Learning, Computer Vision, Machine Learning, Distributed Systems, Design and Analysis of Algorithms

## PROGRAMMING SKILLS

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- **Languages:** Python, C, C++, C#, Java, Javascript, Lua, MATLAB
- **Frameworks:** PyTorch, Torch, Django, Flask, PyTest, Celery, RabbitMQ, ReactJS, AngularJS
- **DevOps:** Docker, AWS EC2, EBS, RDS, ECS, Fargate, Sagemaker, S3, SQS, VPC, Nginx, Apache, Google App Engine
- **Version Control:** Git
- **Databases:** MySQL, PostgreSQL, MongoDB, Elasticsearch, Redis, Couchbase
- **Mobile Applications:** Android, Windows Phone App Development

## EXTRA CURRICULAR ACTIVITIES

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- Organizing First **Visual Dialog Challenge**
- Presenting Human-in-the-loop evaluation for Computer Vision Challenges Demo in CVPR 2018
- Serving as reviewer for ECCV 2018
- Presented a demo on Visual Chatbots at CVPR 2017
- Represented CloudCV at the LDV Vision Summit, New York City 2017
- **Head Organizer**, Google Developers Group, JSS Noida
- **General Secretary**, Nibble Computer Society, JSS Noida
- **Head Organizer**, Hackathon 2015, JSS Noida