

Viraj Prabhu

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EDUCATION

GEORGIA TECH

MS IN COMPUTER SCIENCE

Expected May 2019 | Atlanta, Georgia

BITS PILANI

BE IN COMPUTER SCIENCE

July 2015 | Pilani, Rajasthan

Cum. GPA: 8.56 / 10.0

Major GPA: 8.80 / 10.0

LINKS

Github:// [virajprabhu](#)

LinkedIn:// [virajprabhu](#)

Twitter:// [@virprabh](#)

INTERESTS

Computer Vision, Natural Language Processing

PUBLICATIONS

- The Promise of Promise: Harnessing Questions Premises in Visual Question Answering, EMNLP 2017 (to appear)
- Evaluating Visual Conversation Agents via Cooperative Human-AI Games, HCOMP 2017 (to appear)

COURSEWORK

GRADUATE

Course 1

Course 2

UNDERGRADUATE

Machine Learning, Information Retrieval, Parallel Computing, Operating Systems

TEACHING ASSISTANT

Intro to Machine Learning, Fall '16, Virginia Tech

SKILLS

PROGRAMMING

Python • C/C++ • JavaScript • Lua • MATLAB • Java • Bash

TECHNOLOGIES

Torch • Keras • \LaTeX • EmberJS • Android

EXPERIENCE

VIRGINIA TECH | RESEARCH SCHOLAR, MACHINE LEARNING AND PERCEPTION LAB

Aug 2016 – May 2017 | Blacksburg, VA

- Worked with Prof. Dhruv Batra and Prof. Devi Parikh on deep learning approaches to Visual Question Answering (VQA).
- Question Premises: Developed approach to extract visual concepts implied from VQA questions to generate a dataset and models for question relevance detection, and for data augmentation. [Accepted at EMNLP 2017]
- Evaluating Visual Conversational Agents Via Human-AI games: Measured effectiveness of human-AI teams on GuessWhich, a cooperative image guessing game. [Accepted at HCOMP 2017]
- Theory of AI's Mind: Conducted human studies on Amazon Mechanical Turk to measure the ability and extent to which humans can be trained to better predict the behavior of a VQA model. [Accepted at Workshop for Explainable Computer Vision, CVPR 2017]

GOOGLE SUMMER OF CODE | MENTOR, CLOUDCV

Summer of 2016, 2017

Mentored and presently maintain the Google Summer of Code project Fabrik, a web platform to build deep neural networks via a simple drag and drop interface. [GitHub]

TONBO IMAGING | R&D INTERN

Jan 2015 – Jun 2015 | Bangalore, India

- Computer vision startup developing sensor systems for defense
- Automated calibration of company cameras using a collimator and AprilTag target setup, reducing calibration error by over 6%.
- Implemented a boresighting algorithm to precisely align a weapon's muzzle and sighting system for TDS-BRS, Tonbo's video precision boresight tool.

ADOBE SYSTEMS | RESEARCH INTERN

May 2014 – Aug 2014 | Bangalore, India

- Real-time video segmentation: Developed a graphcut-based segmentation algorithm for real-time background substitution in video that combined color, motion and shape cues.
- The technology was transferred into Magic Green Screen, the marquee feature of Adobe Presenter Video Express (PVX) 11.[Report] [Demo]

ADOBE SYSTEMS | MEMBER OF TECHNICAL STAFF

Jul 2015 – Aug 2016 | Bangalore, India

Individually responsible for the Adobe Captivate Prime Android app, contributing with features for offline content play-back, syncing and UI.

AWARDS & PRESENTATIONS

2017	Presenter	Visual Chatbots Demo, CVPR, Hawaii
2017	Winner	VTHacks, Blacksburg
2016	Representative	GSoC Mentor Summit, Sunnyvale
2014	Winner	Google Hackathon, APOGEE, BITS Pilani
2013	Second	Project Presentation, APOGEE, BITS Pilani