

EDUCATION

Nanyang Technological University (NTU)

B. Eng. in Computer Science | Singapore
August 2014 - December 2018 (Expected)
Cum. GPA: 4.68/5.0
Major GPA: 4.89/5.0

University of Waterloo

Exchange Semester | Waterloo, Canada
January - May 2016
Gained tremendous cultural exposure and built an international network

La Martiniere Boys College

Grad. May 2014 | Lucknow, India
Higher Secondary Score: 97.75%
High School Score: 95.6%

COURSEWORK

Data Structures and Algorithms
Advance Topics in Algorithms
Introduction to Databases
Artificial Intelligence
Operating Systems
Intelligent Agents
Machine Learning
Neural Networks
Computer Vision

SKILLS

Programming

Java • Python • JavaScript • Matlab

Web and App Development

HTML5+CSS3 • jQuery • Bootstrap • Django • React • Android • Git

Research

Caffe • TensorFlow • Keras • PyTorch • Bash • \LaTeX

AWARDS

NTU President Research Scholar

NTU Undergraduate Research Experience on CAmpus (URECA) | 2015-16

3rd Prize

Accenture Hackathon Singapore | 2015

Dean's List

NTU Year 1 | 2014-15

NTU Science and Engineering Undergraduate Scholarship

NTU | 2014 - 2018

SOCIETIES

NTU Students Union (NTUSU)

IT Director | 2015-16

- Led a team of 6 students to redesign and create a new NTUSU website.
- Developed a website for the Union shop to enhance student experience.

NTU Model United Nations & Red Cross Youth Design Team | 2014-16

Designed the posters, flyers, t-shirts and lanyards for the events.

Red Cross Youth NTU Chapter Business Team | 2014-15

Sourced sponsors for a charity event.

EXPERIENCE

Google Code-in | Mentor

November 2017 - January 2018

- Mentored over 20 students for the CloudCV organization on various tasks.
- Monitored 100 tasks out of which 52 were successfully completed and merged with the project code base.

Google Summer of Code | Student Developer

May 2017 - August 2017

- Worked with the CloudCV organization on a project named Fabrik(a tool for building and visualizing neural networks).
- Redesigned UI/UX, added support for 35 layers for Caffe framework, 60 layers of Keras framework and functionality to share models.
- Added continuous integration, automatic code coverage check and increased code coverage from 0 to 97%.
- All code was pushed into production and increased the GitHub followers of the project by 18 times.

Video Analytics Lab | Research Intern

August 2016 - May 2017 | IISc, Bengaluru, India

- Worked on multiple research problems which apply deep learning approaches to computer vision tasks, particularly related to understanding CNNs and analyzing the effects of adversarial images.
- Authored three papers(more details in Research section).

Newgen Software | Project Intern

May 2015 - July 2015 | New Delhi, India

- Created a web based application to create custom forms in which the appearance and location of each field can be customized.
- Intended to generate forms that replace the conventional forms used in financial institutions.

RESEARCH

Fast Feature Fool | Research Paper

A data independent approach to universal adversarial perturbations

Mopuri, K. R.*, Garg, U.* and Radhakrishnan, V.B.(*=equal contribution)

- Proposed a way to optimize universal adversarial perturbations without access to the target dataset.
- Accepted at British Machine and Vision Conference(BMVC), 2017.

NAG: Network for Adversary Generation | Research Paper

A generative approach for modelling the distribution of adversarial perturbations

Mopuri, K. R.*, Ojha, U.*, Garg, U. and Radhakrishnan, V.B.(*=equal contribution)

- Proposed a way to model the distribution of universal adversarial perturbations for a single or multiple target CNNs.
- Accepted at Computer Vision and Pattern Recognition(CVPR), 2018.

CNN Fixations | Research Paper

An unraveling approach to visualize the discriminative image regions

Mopuri, K. R.*, Garg, U.* and Radhakrishnan, V.B.(*=equal contribution)

- Proposed a way to visualize predictions of deep neural networks.
- Paper submitted in August 2017.

SELECTED PROJECTS

Action Recognition from Videos | Final Year Project

- Developing CNN+RNN based deep learning models to perform action recognition on videos.

Fabrik | Open Source Project

- An open-source web application to collaboratively build, visualise and design neural networks.

Maze Solving Robot | Multi-disciplinary Project

- Worked with a team of 8 people to develop a maze solving robot.
- Developed the algorithm to firstly explore the maze and to then take the fastest path from start to goal.

Drone Gesture Control | Undergraduate Research Experience on CAmpus

- Created a touch based UI and integrated it with the LEAP motion controller to simultaneously control multiple quad-copters using hand gestures.