

PRIYANK PATHAK

MASTERS STUDENT
Computer Science

NEW YORK UNIVERSITY, COURANT
pp1953@nyu.edu; priyankpathak50@gmail.com, +1(716)795-7350, +1(917)535-3148

EDUCATION

Year	Degree	Institute	CPI
2020 (Expected)	MS Computer Science	New York University, GSAS	4/4 (midterm)
2018	B.Tech Computer Science & Electrical Engg.	Indian Institute of Technology, Kanpur	8.5/10.0

SCHOLASTIC EXCELLENCE

- Appointed as an exception to the grader position for a graduate course **Applied Cryptography and Network Security** and currently the grader for the undergraduate course **Artificial intelligence**
- Received **Academic Excellence Award** for distinctive performance in academics for the term **2013-14** and **2017-18**
- Secured **All India Rank (AIR) 1597** in JEE ADVANCED 2013 among 1,50,000 candidates
- Recipient of Kishore Vaighyanik Protsahan Yojana (**KVPY**) 2012-13, **All India Rank (AIR) 194**
- Awarded **Donor scholarship** for all round academics and extracurricular **2014-15, 2016-17 and 2017-2018**
- (Undergraduate) Scored perfect **10 pointer**, among the top 11 students to get **Dual Major in Computer Science**

INTERNSHIP EXPERIENCE

- VAE-GAN for audio reconstruction, Rice University, Texas, US** (Guide-Prof Anshumali Srivastava) (May'17 - August'17)
 - Attended **High Performance Computing (HPC) BootCamp** for **parallel programming** and **working on GPUs**
 - Applied the vision **VAE-GAN** on audio spectrogram per frame to reconstruct any audio with any sound
 - Compared English trained model with French trained to see which phonemes were most affected, using T-SNE.
- Cloud Computing, Reliance Jio, India** (May - July 2016)
 - Prepared Proof of Concept for *eSign*, using government, Adobe and different implementation for legal binding
 - Coded with Java iText library for PDF signing involving multilevel CAs, cryptography, time stamps, CRLS, etc
 - Developed activity tracker on Cloud, using **python (Django framework)** and Angular Js, involving self-written APIs
 - Prepared case study for Druid Data Analytics. Set up Druid, Pivot and HDFS on different VMs for Wikipedia analysis

RESEARCH PROJECTS UNDERTAKEN

- Graduate Research Project, Computer Vision and Reinforcement Learning (Robotics)** (Sept'18 - present)
Guide-Prof. Rob Fergus (NYU) and Ilya Kostrikov (NYU)
 - RetinaNet Based Object detector and tracker, for a Robot to lift an object. (Report)
- Undergraduate Project, Natural Language Processing, (CNN, RNN)** (Dec'17 - June'18)
Guide-Prof. Harish Karnick (IIT Kanpur)
 - Proposal of a CNN-Based evaluation metric for text comparison on topic overlap and readability. (Report)
- Undergraduate Project, Computer Vision (GANs, VAE, AE)** (Aug'17 - Nov'17)
Guide-Prof. Anshumali Srivastava (Rice University) and Prof. Vinay Namboodiri (IIT Kanpur)
 - Self theorized idea of predicting dates of artworks based on matching artworks from life timeline.
- Defocused Image, Artificial Blurring** (Aug'17 - Nov'17)
Guide-Prof. Vinay Namboodiri (IIT Kanpur)
 - Modified NYU V2 Dataset, OF binary depth maps and Pix2Pix Model trained to create defocused image (Report)
- Inventory Management, SURF image processing** (Third semester, Winter, 2014)
 - Prepared case study of Surf point descriptors to mark characteristic points for detection of object and designed prototype algorithms for counting the number of object appearing in an image, irrespective orientation

KEY PROJECTS UNDERTAKEN

- Microsoft Code.Fun.Do (24-hrs Competition)** (eighth semester, March 2017)
 - Application of One Millisecond Face Alignment to mark feature points on face (web cam) to mimic snapchat/facebook face filters, eye lids monitoring for pdf scrolling and sleep detection
- Network implementation through Cloud allocated Virtual Machines, (Networks)** (Seventh semester, 2016)
 - Lost and Found portal implementation based on webmail service, (Python Django and Central MySQL database).
- NachOS implementation of OS, (Operating System)** (Seventh semester, 2016)
 - Implemented System calls to simulate normal OS functionality, (Program scheduling, parallel programming and different page replacement algorithms and intercommunication processes)
- Implementation of Money Split-wise, (Database)** (Eighth semester, 2017)
 - MYSQL implementation of split wise algorithm and verification of non-applicability of transitive enclosure property
- Verilog Implementation of Assembly language (Computer Architecture)** (Sixth semester, 2016)
 - Implemented Quick Sort in assembly language along with other computer organization assignments

TECHNICAL SKILLS

- Programming Languages:** C,C++,Python(tensor flow, Keras and Pytorch) ,Shell Scripting
- Tools:** Octave, L^AT_EX, Git,GnuPlot, Matlab, Photoshop , Premium Pro
- Operating Systems:** Windows, Linux

POSITIONS OF RESPONSIBILITY and EXTRA CURRICULAR INVOLVEMENTS

- Student Guide and Academic Mentor, Counseling Service (2014-15)
- Electrical Engineering Association, Convener (2015-16)
- Media and Publicity Senior Executive, Techkirti'15 (2014-15)
- Photography Enthusiast and Freelance videomaker, editor and cinematographer
- Part of Alumni Contact Program
- Active Sports person and Squash player