

Swati Gupta

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EDUCATION

IIT KANPUR

BTECH IN ELECTRICAL ENG.

MINOR IN ENGLISH LIT.

July 2014 - April 2018 | Kanpur

CPI: 8.9/10.0

IIS JAIPUR

SENIOR SECONDARY

12 TH		10 TH
2014		2012

Percent: 96% | CGPA 10.0/10.0

INTERNSHIP

UNIVERSITY OF TEXAS AT DALLAS | STUDENT INTERN, DEPT. OF COMPUTER SCIENCE, UT DALLAS

PROJECT TITLE: **TIMELINE: CROSS DOCUMENT EVENT ORDERING**

May 2017 – July 2017 | Dr Vincent Ng, Dept.of CS, UT Dallas, TX, USA

- Extracted relevant event and time mentions from the NewsReader Dataset using Stanford CoreNLP, an integrated NLP toolkit and performed temporal tagging.
- Implemented new kernel methods like Subset Tree kernels based on Dependency trees for Relation extraction and trained an SVM Classifier using them to link events to the correct time instances of their occurrence

PROJECTS

INTELLIGENT AUTONOMOUS GROUND VEHICLE | TEAM LEADER AND COMPUTER VISION HEAD, TEAM IGVC, IIT KANPUR

Sept 2016 – April 2017 | Dr Gaurav Pandey, EE, IIT Kanpur

- Built and tested numerous computer vision algorithms to detect chalk lanes on grassy surface and avoid obstacles using sensors like LIDAR and Camera.
- Created a system for online mapping of surroundings (lanes and obstacles) using continuous LIDAR and camera data stream.

DEEP LEARNING FOR FOR REAL-TIME IMAGE ENHANCEMENT | COURSE PROJECT, VISUAL RECOGNITION, IIT KANPUR

Aug 2017 – Nov 2017 | Dr Vinay Namboodri, CSE, IIT Kanpur

Successfully implemented the paper by Gharbi, Michaël, et al, titled "Deep Bilateral Learning for Real-Time Image Enhancement" in Pytorch, from scratch using a new convolutional network architecture which preserves edges, details and is computationally very efficient on high resolution images.

VOICE CONTROLLED NAVIGATION OF ROBOT | UNDER GRADUATE PROJECT, IIT KANPUR

Aug 2017 – Dec 2017 | Dr Mangal Kothari, AE, IIT Kanpur

Created a virtual robotic system controllable by voice commands, using Amazon Alexa and Robot Operating System (ROS) by creating a custom Alexa skill and utilizing ROSbridge library.

PHOTO EDITOR | COURSE PROJECT, IMAGE PROCESSING, IIT KANPUR

Aug 2017 – Dec 2017 | Dr Tanaya Guha, EE, IIT Kanpur

Used NL Means Filtering along with a variant of Adaptive Histogram Equalisation (CLAHE) for Image enhancement, and a pretrained HAAR Cascade classifier for eye detection in the Red Eye Correction function.

CLEAN ENERGY - ABU ROBOCON 2016 | SENIOR MEMBER, TEAM ROBOCON IIT KANPUR

Sept 2015-Mar 2016 | Dr Bhaskar Das Gupta, Center for Mechatronics, IIT Kanpur

Developed 2 semi-autonomous Robots, with one providing non-contact driving energy to propagate the other on a complex path, then exchange a wind propeller to climb up a Wind Turbine Pole (about 2m) in automated mode.

AWARDS

2016 3rd/110 teams

2015 top 25

2015 1st/70 teams

2012 Silver Medallist

2012 AIR 23, KVPY fellow

2012 AIR 1

2008 NTSE Scholar

ABU Robocon 2016 - Nationals

Academic Excellence Award, IIT Kanpur

Manufacturing Process, Shenron Dragon

9th International Junior Science Olympiad (IJSO), Tehran, Iran

Kishore Vaigyanik Protsahan Yojana (KVPY), Govt of India

National Science Talent Search Examination(NSTSE), UC

National Talent Search Examination (NTSE), Govt Of India

WORK

EXPERIENCE

SOFTWARE ENGINEER,

JUNIPER NETWORKS INDIA

Jul 2018 - present

Building cloud based and user specific solutions for the router node virtualization project.

COURSEWORK

CSE

Data Structures and Algorithms

Visual Recognition

Computer Networks

Cyber-Physical and Embedded Systems

Introduction to NLP

EE

Modelling and Representation

Techniques in Images

Image Processing

Probabilistic Mobile Robotics

OTHER

Probability and Statistics

Partial Differential Equations

Physics-I (Academic Mentor)

SKILLS

PROGRAMMING

C • C++ • Python • Pytorch

Matlab • OpenCV • Git • ROS

• LabView • \LaTeX

SOFTWARE

OpenStack • SVM-light/libSVM

Arduino •

Solidworks/Inventor • Verilog

• Android Studio/Eclipse

FAMILAR OS

Linux/Ubuntu • Windows