

# Shubhi Gupta

## Computer Science Undergraduate



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### Summary

Computer science undergraduate aiming to develop in the fields of autonomous technology aided with skills in statistics, image processing and neural networks.

### Languages

English | Hindi | Japanese

### Courses

**Image and Video Processing,**  
Duke University

**Mathematics for Machine Learning,**  
Imperial College London

**Introduction to Computer Vision,** Georgia Tech

### Conferences and Workshops

**IEEE CONECCT-2020** (Presented the paper 'A Computer Vision Based Approach for Automated Traffic Management as a Smart City Solution')

**T-Zero 2.0** (Organized by The Project Team)

**CodeEarth** (Content creator and organizer at Yuddhame in Aarush'17)

### Passions

**Digital and 3D Art** (Adobe Sketchbook and Blender.)

**Content Writing** (Featured on 'thescribbledstories'. Freelanced at Nyxwolves.)

**Bharatnatyam Classical** (10 years of experience with a Master's Degree.)

### Education

**SRM Institute of Science and Technology, B.Tech. in Computer Science**  
06/2017 – 04/2021 | GPA: 9.33

**Thakur Vidya Mandir, Higher Secondary**  
06/2016 – 04/2017 | GPA: 92.3%

**Lokhandwala Foundation School, Secondary**  
06/2014 – 04/2015 | GPA: 95.3%

### Work Experience

**Deloitte India, Intern**

05/2020 – 07/2020 | Mumbai, India

Trained on text classification problems and core machine learning principles for Data Science. Analysed the use of FCBIR in classification of CAD jewellery designs.

**Ernst & Young (EY), Intern**

06/2019 – 07/2019 | Mumbai, India

Developed a Car Damage Assessment model for the application of Computer Vision and Deep Learning in the auto-insurance industry.

### Skills

**Languages** (C++, Python)

**Frameworks** (OpenCV, TensorFlow, Keras, Scikit-learn, NumPy, Excel)

### Academic Knowledge

**Languages** (C, Java, R, SQL)

**Frameworks** (MATLAB, HTML, Azure ML Studio, MapReduce, NLTK)

### Projects

**A Computer Vision Based Approach for Automated Traffic Management as a Smart City Solution,** in process of publication in the IEEE CONECCT-2020

Proposes the use of adaptable lanes dividers for traffic management using real time video analysis. Uses image processing and computer visions techniques for vehicle speed, density calculation and road detection.

**Automated Car Damage Assessment**

Using convolutional neural networks, the model is capable of validating specifics on car damage from user submitted images.

**Visual Question Answering**

Application of Natural Language Processing in Computer Vision. Uses the easy-vqa dataset to train a VQA model that combines image and text features to answer open-ended questions.

**Mosaic Satellite Image Stitching**

Application of Big Data in image processing. Using Apache Hadoop MapReduce with OpenCV for stitching of observatory tile images for object detection and recognition.

### Organisations

**Next Tech Labs, Head Researcher and Mentor**

02/2018 – present | Chennai, India

Mentoring multiple members and associates in the fields of Computer Vision, Automation, IoT and Embedded Systems. Leading multiple projects and research involving vision and human interaction.

**Google Developer's Group, Member**

02/2020 – present | Chennai, India

**Beeclust Multi Robots Systems Lab, Associate Embedded Systems Researcher**

01/2018 – 02/2018 | Chennai, India

Contributed on the main research project involving printing using swarm robotics technology. Assisted the corporate relations management division for the team.