

# HIMANSHU CHAUHAN

himanshu.chauhan.mec16@iitbhu.ac.in

(+91)7351452977

Indian Institute of Technology, (B.H.U), Varanasi

Junior Undergraduate in Mechanical Engineering with Specialization in Industrial Management

## EDUCATION

Year	Degree	Institute	%/CPI
2016-2020	B.Tech in Mechanical Engineering	IIT BHU Varanasi	8.88/10
2014-2015	Intermediate	Translam Academy International	92.8

## ACADEMIC ACHIEVEMENTS

Certifications	▪ Neural Networks and Deep Learning by deeplearning.ai	2018
Competitive Exams	▪ IITJEE: <b>AIR 4996</b> out of 4.7 lakhs students   JEE MAIN: AIR 10050 out of 10.5 lakhs students	2016

## LANGUAGES

PYTHON, C++

## TOOLS

Numpy, Git, Scikit, TensorFlow, Keras, OpenCV

## AREAS OF INTEREST

Computer Vision, Medical Image Computing, Machine Learning

## WORK EXPERIENCE

Indian Institute of Foreign Trade, Kolkata	<ul style="list-style-type: none"><li>Identified the financial predictors (52) to forecast Stock Market Volatility of Indian Stock Market.</li><li>Applied Machine Learning model and accuracy is improved in comparison of similar work from <b>Journal of Banking and Finance</b>.</li></ul>
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## KEY PROJECTS

<b>Autonomous Robotic Arm for Warehouse Logistics</b> <i>UnderGraduate Project under the guidance of Prof. Kripa Shankar</i>	<ul style="list-style-type: none"><li>Design and Fabrication of <b>6 degree of freedom</b> autonomous robotic arm to sort the objects based on shape and colour.</li><li>Used Computer Vision principles for object localisation and detection through camera and determine the object location and color.</li><li>Used Robotics principles for kinematic movements of links using servo motors.</li></ul>
<b>Histopathological Image Classification using Deep Learning</b> <i>under the guidance of Prof. S.K. Singh (August 2018-Ongoing)</i>	<ul style="list-style-type: none"><li>Studied Medical Image Computing techniques for Histopathological Images</li><li>Used <b>Data Augmentation</b>, <b>Stain Normalization</b>, and <b>Stain Augmentation</b> techniques that improved the <b>accuracy by 7%</b>.</li><li>Used layer features of pretrained <b>VGG16</b> and concatenated to classify the feature vector.</li><li>Achieved best accuracy of <b>97.2%</b> and submitted the work to <b>Journal of Information Science, Elsevier</b>.</li></ul>
<b>Restoring Old Images</b> <i>(September 2018- Ongoing)</i>	<ul style="list-style-type: none"><li>Studying Image Inpainting Techniques using <b>Generative Adversarial Networks</b>.</li><li>Improving state-of-the-art techniques to be applied on any type of images.</li></ul>
<b>Exploratory Project</b> <i>(August 2017- November 2017)</i>	<ul style="list-style-type: none"><li>Designed a model of <b>Light-Weight</b> innovative DUSTBIN under the guidance of Prof. AK Agarwal to be installed at public places.</li><li>Served as a purpose of reducing spillage while picking the waste from it, this helped in reducing stink around the dustbin.</li><li>Reduction of spillage by <b>20%</b> is observed at installed places.</li></ul>

## ACHIEVEMENTS

Philips Hackathon on Data Science	▪ Cleared Round 2 of Data Science Hackathon	2018
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	<ul style="list-style-type: none"> <li>▪ Solved the problem of Multi-Class Classification using Random Forest Algorithm achieving 88.9% accuracy</li> </ul>	
<b>National Sustainability Case Challenge</b>	<ul style="list-style-type: none"> <li>▪ Achieved <b>Top 8</b> finals among <b>250 Teams</b> across India</li> <li>▪ Diagnosed the problem of Global Warming and proposed some good solutions.</li> </ul>	2018
<b>River Rejuvenation Conclave</b>	<ul style="list-style-type: none"> <li>▪ Surveyed the prevailing conditions of pollution in Ganges River</li> <li>▪ Won the event with <b>FIRST PRIZE</b> for innovative idea of <b>MANURE CENTERS</b></li> </ul>	2016