

ABHISHEK AGRAWAL

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Email Id: abhiagwl4262@gmail.com**EDUCATIONAL PROFILE**

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|-------------|---------------------|---|---------|
| 2013 – 2017 | B. Tech | Indian Institute of Technology, Jodhpur | 7.79/10 |
| 2010 | Class X (R.B.S.E) | D.S.S.A, Gangapur City (Raj.) | 91.67 % |
| 2012 | Class XII (R.B.S.E) | D.S.S.A, Gangapur City (Raj.) | 84.00 % |

EXPERIENCE

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| Research Engineer Hi-Tech Robotic Systemz (Since June'17) | Working as Research Engineer in Hi-Tech Robotic Systemz ♦ Building Advanced Driver Assistance System (ADAS) that includes Forward Collision Warning , Lane Departure Warning and Blind Spot Detection followed by system integration ♦ Implemented Classical Kalman Filter based motion model for Multi Object Tracking followed by extraction of unique features for appearance model based object association for ID-tracking ♦ Performed Real time performance optimization using C++ parallelization by OpenMP and CUDA ♦ Worked on Object Detection using Single Shot Detection networks like YOLO and SSD followed by the post processing for the better localization of objects. ♦ Worked on Monocular unsupervised Depth estimation with left-right consistency in stereo pair ♦ Worked on hard braking capture using Inertial Measurement Unit (IMU) sensor MPU9250. |
| Summer Internship (TCS Innovation Lab) (May'16 – July'16) | ♦ Worked on understanding of custom DEEP NEURAL NETWORK for Cattle Detection in Images. ♦ Implemented feature extraction using ResNET and InceptionNET type networks |

PROJECTS

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| Text extraction from image (August'16 – Nov'16) | ♦ Implemented Graph based Image segmentation and worked on text region extractor based on Maximally Stable Extremal Region (MSER) |
| Automatic License Plate Recognition (May'15 – July'15) | ♦ Devised a system that can extract the number plate region from a random image, segment out this region and then recognize segmented characters from that region ♦ Utilized algorithms such as connected component and Sobel edge detection and OCR (Optical Character Recognition) to recognize segmented character |
| Eye Blink Detection (Sept'15 – Nov'15) | ♦ Divided project into face localization, eye pair localization and template matching method ♦ Implemented Horn Schunck Algorithm to measure vector flow and used moving window over frames to predict the eye-blink |

AREAS OF INTEREST

Computer Vision, Deep Learning, Data Science, Product Development

TECHNICAL SKILLS

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| Programming Languages | ♦ Python, C, C++, Matlab, R, CUDA, roscpp, rospy |
| Tools and Platform | ♦ Linux, ROS, OpenCV, Tensorflow, Keras, Nvidia JetsonTX1, libuvc, Eigen, IMU9250 |

COURSES UNDERTAKEN

Academic Courses - Artificial Neural Networks and Deep Learning, Digital Signal Processing & applications, Signals and Systems, Computer Programming, Data Structure and Algorithm, Probability and Statistics, Linear Algebra, Differential Equations, Information theory and coding

Distance Learning - Neural Networks and Deep Learning by **Andrew NG**, Structuring Machine Learning Projects by Andrew NG, Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization by Andrew NG

EXTRA CURRICULAR ACTIVITIES

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| Head, Public Relations and Hospitality (IGNUS 2016) | ♦ Initiated the novel Campus Outreach Program by leading a team of 40 members, managed a footfall of 10,000 participants for the inter college festival spanning entire country |
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