

## EDUCATION

### Birla Institute of Technology and Science, Pilani, India

*Bachelor of Engineering (Hons.) in Computer Science*

2011 - 2015

*Relevant Courses:* Machine Learning, Pattern Recognition, Computer Graphics

*Activities:* Coordinator - ARBITS; Technical Team - Department of Photography

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## SKILLS

*Programming Languages:* C, C++, Python

*Frameworks:* PyTorch, scikit-learn, OpenCV

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## EXPERIENCE

### Team Lead, R&D

*Reverie Language Technologies Pvt. Ltd., Bengaluru*

July 2019 – Present

- Designed and developed language annotation game with a purpose (accepted at Games and NLP workshop, LREC 2020)
- Developed state-of-the-art natural language understanding systems for low resource languages
- Boosted transliteration engine performance by 25% by resolving ambiguities in code-mixed text through word-level language classification

### Computer Vision Engineer / Software Architect

*Eternal Robotics Pvt. Ltd., Hyderabad (formerly Endless Robotics)*

Aug 2016 – Apr 2019

- Designed scalable and modular software architecture for control software of wall-painting robot
- Devised technique for 3D reconstruction of rooms with sparse features for robot navigation

### Member of Technical Staff

*Tonbo Imaging Pvt. Ltd., Bengaluru*

July 2015 – July 2016

- Efficiently implemented robust detection and real-time tracking of multiple objects on embedded platforms using state-of-the-art algorithms
- Achieved military grade performance (30mrads, +/- 1px track deviation) by integrating tracker with gimbal to stabilize line of sight for surveillance

### R&D Intern

Fall 2014

*Tonbo Imaging Pvt. Ltd., Bengaluru*

- Real-time image deblurring at rotational speeds of 0.25 Hz for 360° surveillance using IMU data
  - Developed dynamic scene simulator for rapid testing of vision algorithms using OpenSceneGraph
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## ACADEMIC PROJECTS

### Unsupervised Sign Language Segmentation (*In Progress*)

End-to-end unsupervised approach for sign language segmentation using Convolutional Autoencoders and Gaussian Mixture Models, inspired by zero-resource spoken language tasks

### Music Analysis and Recognition Software

Developed application for automatic tagging of musical genres using Naive Bayes Classifier. Awarded second prize in Software Development – Adaptive Technology at APOGEE 2013 – BITS, Pilani

### Try-On

Developed application for recognizing best fit for clothing using skeletal track output of Microsoft Kinect. Awarded second prize in Software Development at APOGEE 2013

### Object detector

Developed object detector for faces in different poses using Haar Cascade classifier to enable smoother human-computer interaction, under the guidance of Dr. J. L. Raheja at CEERI, Pilani