## Abhinav Dadhich

resbyte.github.io abhid@outlook.com

#### **EDUCATION**

# NARA INSTITUTE OF SCIENCE AND TECHNOLOGY

M.Eng. IN Information Science Oct 2015 | Nara, Japan

# INDIAN INSTITUTE OF TECHNOLOGY, JODHPUR

B.Tech. IN ELECTRICAL ENGINEERING June 2013 | Jodhpur, India

## SKILLS

#### **PROGRAMMING**

Python • C++ Familiar:

Keras • Mxnet • Tensorflow • OpenCV • Numpy • Scikit-Sklearn •

Caffe • ROS • PCL

Datasets and Robots:

MNIST • COCO • Pascal VOC • MPII

• TurtleBot • Quadcopter

## LINKS

Github:// ResByte LinkedIn:// adadhich Ouora:// Abhinay-Dadhich

## COURSEWORK

#### **GRADUATE**

Robotics Computer Vision Foundations of Artificial Intelligence Ambient Intelligence Computational Neuroscience Computer Graphics

#### **UNDERGRADUATE**

Data Structure and Algorithms Introduction to Programming Signal Processing Digital Electronics and Microprocessor Technology

#### **EXPERIENCE**

#### ABEJA, INC | RESEARCHER

Aug 2016 - | Tokyo, Japan

Within an international team, I am responsible for designing and developing state-of-art Deep Learning models. With experience in data cleansing and data preprocessing, I develop several ML and CV applications to enhance business operations and provide an edge over competitors. I continuously keep in touch with recent research and reproduce results on standard benchmarks. Most frequent tools used are: Pytorch | Keras | Tensorflow | CUDA | Opency | Scikit-Learn

#### RAPYUTA ROBOTICS | ROBOT NAVIGATION INTERN

Oct 2015 - May 2016 | Tokyo, Japan

- Developed and extended state-of-art algorithms for Cloud based RGBD SLAM.
- Fine tuned parameters for real time performance with extensive testing on real world environment and datasets.
- In a team of 4, conducted weekly live demos for potential clients on aerial vehicle obstacle avoidance.

#### **PUBLICATION**

Abhinav Dadhich, Nishanth Koganti, and Tomohiro Shibata. "Modeling occupancy grids using EDHMM for dynamic environments.", In Proceedings of the Conference on Advances In Robotics 2015, p. 60. ACM, 2015.

### **PROJECTS**

#### **MATHEMATICAL INFORMATICS LAB** | MASTERS THESIS

Oct 2013 - Sept 2015 | Ikoma, Japan

- Supervisor: Dr. Kazushi Ikeda, Dr. Tomohiro Shibata.
- Problem: Robot navigation in dynamic environments is challenging.
- Solution: Maintain robust map for navigation by incorporating observed changes.
- Over Long periods of working of robots, a large sequential map data is generated. Inferring the hidden states in such sequential data. Working towards Publication

#### IIT JODHPUR ROBOTICS LAB | Undergraduate Research

Oct 2012 - Feb 2013 | Jodhpur, India

- Developed a Video Tracking system for a general object.
- Implemented Lucas-Kanade method of sparse optical flow in tracking and used SIFT algorithm to detect objects.
- Python is used as working environment with OpenCV libraries. Controller for the system is Beagleboard with ubuntu 11.10.

### PRESENTATIONS

#### MACHINE LEARNING KITCHEN Mar 2017 | Tokyo

Presented a talk on "Object Detection Pipeline" utilizing deep learning models.

#### ABEJA INNOVATION MEETUP Apr 2017 | Tokyo

Presented a talk on "In and Around CNNs" giving overview of CNN and recent state of the art methods.