

# PRATIK VAISHNAVI

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## EDUCATION

### STONY BROOK UNIVERSITY

Stony Brook, New York

- Masters in Computer Science. **CGPA:** 3.59/4
- Coursework: Operating Systems, Analysis of Algorithms, Introduction to Computer Vision, Machine Learning, Probability and Statistics, Natural Language Processing.

December 2017

### SVNIT, SURAT

Surat, India

- Bachelor of Technology, Electronics & Communication Engineering. **CGPA:** 7.34/10

May 2016

## WORK EXPERIENCE

### BOMPOD SOLUTIONS PVT. LTD., AHMEDABAD, INDIA

Technology Consultant

Jan 2016 – Jul 2016

**Role:** Supervised the development of the technological framework to support the operations of this fresh produce supply-chain optimization start-up. Additionally, developed a custom POS and Inventory Management System suitable to the business operations. The final framework consisted of 2 Android apps and 2 web apps.

#### Personal contributions:

- Designed and implemented the entire database for the business, to capture the information flowing between various inter-dependent processes. Designed algorithms for logistics optimization.
- Did the backend integration of the web apps, including the POS and Inventory management system.
- Analysis of live customer consumption data to map products with customer loyalty and in turn, come up with customized marketing schemes.

**Technology used:** JQuery, AJAX, PostgreSQL, HTML, Docker, Postman, Hasura, Python Libraries – Flask, Requests

### INDIAN INSTITUTE OF TECHNOLOGY, KARAGPUR, INDIA

Research Intern

May 2015 – Jul 2015

**Problem Statement** – Dynamic hand gesture recognition using deep learning algorithms.

#### Project Description –

- Developed a model to detect dynamic hand gestures in spatio-temporal data.
- Synthesized a dataset suitable to the problem being tackled.
- Presented detailed analysis and performance results on multiple datasets.
- Results were published in two international research papers.

**Technology Used:** Python, MATLAB, Matconvnet, Theano, Lasagne, Opencv-Python, Scikit-Learn

## SELECT PROJECTS

- Generating product descriptions from tags** (Feb'17 - present)  
Given tags describing the key attributes of a product, generate a flowery description for the product using sequence to sequence models. **Technology Used** - Python, Tensorflow
- Tackling ambiguity due to multiple people in pose detection** (CSE-523, Advanced Project-I) (Aug'16 - present)  
Develop a pose detection model immune to ambiguities due to the presence of multiple people in the frame using convolutional neural networks. **Technology Used:** Python, Caffe
- Incorporating handcrafted features in Wide-ResNets** (Project, CSE-527) (Oct'16 - Dec'16)  
Improve the accuracy in object detection of wide residual networks by enforcing learning using hand-crafted features. **Technology Used:** Python, Lasagne

## PUBLICATIONS

- Nrityabodha: Towards understanding Indian classical dance using a deep learning approach**, Aparna Mohanty et. al. Role: Co-Author | Signal Processing: Image Communication, Elsevier | Volume 47, September 2016, Pages 529–548
- Robust Pose Detection using Deep Learning**, Aparna Mohanty et. al. | Role: Co-Author | Proceedings of International Conference of Computer Vision and Image Processing CVIP-2016 | Advances in Intelligent Systems and Computing (AISC), Springer | Volume 2, Page 94

## TECHNICAL SKILLS

**Programming Languages:** Python, JQuery, C, C++, **Databases:** PostgreSQL, **Toolboxes:** MatConvnet, Theano, Lasagne, Caffe, OpenCV-Python, Scikit-Learn, Flask, Requests, **Software:** MATLAB, LaTeX, **Others:** GitHub, Docker, Postman, Hasura