Pratik Vaishnavi
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ACADEMIC DETAILS

Degree	University	Department	Duration	CGPA
MS	Stony Brook University	Computer Science	2016-2018	3.59/4
B.Tech	National Institute of Technology, Surat	Electronics and Comm.	2012-2016	7.43/10

MAJOR PROJECTS

- **Generating product descriptions from tags**
  (Guide: Prof. Niranjan Balasubramanium , Feb'17 - present)
  - Objective: Given tags describing the key attributes of a product, generate a flowery description for the product.
  - Languages/Software - Python, Tensorflow
- **Tackling ambiguity due to multiple people in pose detection** (CSE-523, Advanced Project-I)
  (Guide: Prof. Minh H. Nguyen , Aug'16 - present)
  - Objective: Develop a pose detection model immune to ambiguities in presence of multiple people.
  - Language/Toolboxes: Python, Caffe
- **Incorporating handcrafted features in Wide-ResNets for Object Detection** (Project, CSE-527)
  (Guide: Prof. Minh H. Nguyen , Oct'16 - Dec'16)
  - Objective: Improved the object detection performance of wide residual networks by enforcing learning using hand-crafted features.
  - Language/Toolboxes: Python, Lasagne
- **Dynamic hand gesture recognition using deep learning** (Summer Internship - IIT, Kharagpur)
  (Guide: Prof. Rajiv R. Sahay , May'15 - Aug'15)
  - Objective: Used deep learning algorithms like CNN, CNN-SVM, transfer learning on standard as well as self-synthesised datasets for dynamic gesture recognition from videos.
  - Language/Toolboxes: Python, Theano, Lasagne, MATLAB, MatConvnet, Rasmus Berg Palm deep learning toolbox

WORK EXPERIENCE

- **BOMPOD SOLUTIONS PVT. LTD.**
  Job Title: Technology Consultant
  Duration: Jan'16 - July'16
  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, from scratch. The final framework consisted of 2 Android apps and 2 web apps.
  Personal contributions:
  1. Designed the entire database for the business to capture the information flowing between various inter-dependent processes, and implemented it on Postgres. Also designed algorithms for logistics optimization.
  2. Did the backend integration of the web apps including the POS and Inventory management system using JQuery, AJAX and custom APIs to the database, built using Python libraries - Flask and Requests.
  3. Analysis of live customer consumption data to map products with customer loyalty and in turn, come up with customized marketing schemes.
  4. All the development work was done using Hasura - an App development platform.

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

SKILLS

- **Languages** (Python > JQuery > C >= C++), **Software** (MATLAB, LaTeX), **Toolboxes** (MatConvnet, Theano, Lasagne, Caffe, OpenCV-Python, Scikit-Learn, Flask, Requests), **OS** (Mac OS, Linux, Windows), **Databases** (postgreSQL), **Other development tools** (GitHub, Docker, Postman, Hasura).

AWARDS AND ACHIEVEMENTS

- Best Solution, License Plate Recognition Challenge organized by Wipro Ltd on *www.greymeter.com (Jun'15)*.

EXTRACURRICULARS

- Editor, Renesa - NIT Surat college newsletter
- Member, Organizing Committee - Literary and Debating Club, NIT Surat
- Co-coordinator, organizing committee | MindBend - Technical fest and Sparsh - Cultural fest | NIT Surat.