

# Pradyot Prakash

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## EDUCATION

### UNIVERSITY OF WISCONSIN-MADISON (UW-MADISON)

#### MS IN COMPUTER SCIENCE

Sep 2017 - May 2019 (Expected)

GPA: 4.0

Working with Prof. Rebecca Willett & Prof. Jason Fletcher

### INDIAN INSTITUTE OF TECHNOLOGY BOMBAY (IIT-B)

#### B.TECH. WITH HONORS IN COMPUTER SCIENCE & ENGR. + MINOR IN STATISTICS

2013 - 2017

GPA: 9.26/10

## NOTEWORTHY

1 patent

2 research publications

10/10 in all math courses

## KEY COURSES

- CS Electives
  - Machine Learning
  - Medical Image Processing
  - Digital Image Processing
  - Computer Graphics
  - Big Data Systems
- CS Core
  - Computer Networks
  - Computer Architecture
  - Artificial Intelligence
  - Operating Systems
  - Databases
  - Data Structures and Algorithms

## SKILLS

Python • C++ • Hadoop  
Java • R • MATLAB • SQL

## LEADERSHIP

@ IIT Bombay

Head of Web and Coding Club

Teaching Assistant for 6 semesters

Institute Student Mentor

Department Academic Mentorship

Head

## PROFESSIONAL EXPERIENCE

### Adobe Systems | IDENTIFYING PERSONALITY OF BRANDS

Summer 2016 | Bangalore, India

- Built a model for **predicting Brands' Personality** along 5 personality dimensions using textual content of the articles published by companies
- Outperformed state-of-the-art accuracies by **19%** in the best case
- **Patent** approved and filed by Adobe

### IST Austria | HYBRIDIZATION METHODS OF DYNAMICAL SYSTEMS

Prof. Thomas Henzinger | Summer 2015 | Vienna, Austria

- Worked on Hybrid Systems
- Added features to hybridize a single-state system to a multi-state system governed by affine dynamics and time-based splitting rules
- The latter work **published in HSCC 2016**

### Threatbar | BACKEND SYSTEM INTEGRATION

Summer 2017 | Mumbai, India

- Added support for penetration testing into the startup's platform
- Incorporated several security scanners such as ZAP, Burp, etc. into the system

## RESEARCH

### IIT Bombay NLP Lab | EFFECT OF SEGMENTATION ON TRANSLATION

Prof. Pushpak Bhattacharyya | 2016 - 2017

- Applied **segmentation techniques** such as Orthographic syllabification and Byte-pair encoding for translation and transliteration between related languages
- Extended to **pivot based translation for resource constrained language pairs**
- Paper **accepted in IJCNLP 2017**

### IIT Bombay Vision Lab | STATISTICAL SHAPE ANALYSIS FOR IMAGES

Prof. Suyash Awate | 2016 - 2017

- Learned sparse **dictionaries on Riemannian manifolds** for images
- Applied **Riemannian PCA for 3D-image segmentation**
- Developed a **similarity measure between images and contours** and a corresponding objective function; close to the state-of-the-art results

## ACADEMIC PROJECTS

### Attention Mechanism for transliteration | Advanced Machine Learning | Fall 2016

- Compared transliteration accuracy between statistical models and neural nets
- Looked at LSTM based Recurrent Neural Nets with attention mechanism

### MNIST classification using dictionaries | Digital Image Processing | Fall 2016

- Used Non-Negative Matrix Factorization for the classification of MNIST digits
- Got 94.6% classification accuracy

### C-like compiler | Implementation of Programming Languages | Spring 2016

- Implemented a compiler for a subset of C using flexc++ and bisonc++
- Supported control statements, function calls and function overloading

## AWARDS

2016		Hostel Technical Special Mention, IIT Bombay
2016	2nd	code.fun.do Hackathon, Microsoft
2016	2nd	Logic General Championship, IIT Bombay
2014	1st	Logic General Championship, IIT Bombay
2013	2nd	Game Development Competition, IIT Bombay