

# Vikas Patidar

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*"Somewhere, something incredible is waiting to be known"*

## Employment

July 2016–Aug 2018 **Member of Technical Staff -II, Adobe Systems, India, Noida.**

## Education

2019 **Masters in Computer Science and Engineering, New York University, Courant School of Mathematical Sciences, New York.**  
Jan–Present  
2011–2016 **Dual Degree (BTech + MTech), Computer Science and Engineering, Indian Institute of Technology, Kharagpur, India.**  
○ GPA : 8.65/10.

## Publication

Mayank Singh, Vikas Patidar, Suhansanu Kumar, Tanmoy Chakraborty, Animesh Mukherjee, and Pawan Goyal. "The Role Of Citation Context In Predicting Long-Term Citation Profiles: An Experimental Study Based On A Massive Bibliographic Text Dataset". In: *Proceedings of the 24th ACM International on Conference on Information and Knowledge Management*. CIKM '15. Melbourne, Australia: ACM, pp. 1271–1280.

## Experience and Internships

July 2016–Aug 2018 **Intelligent Digitization of Paper Forms, Adobe Systems, India, Noida.**  
Guides : Deepak Kumar, K.Balaji  
○ The project aims to convert paper forms into digital forms.  
○ Developed a tool for human annotation of 60000 images and managed an external team of 22 employees for tagging the data.  
○ Developed an algorithm for generation of synthetic data to add variety in training data.  
○ Designed and trained a binary Form vs Document classifier.  
○ Architected and trained various neural networks to identify different complex entities/components in forms.  
○ Performed Optical Character Recognition on detected bounding boxes.  
○ Incorporated and implemented Image Processing techniques and Heuristics to tackle complex cases and enhance performance.  
○ Provided RabbitMQ support on network side for scalability and workflow management.  
○ Provided WSGI support for asynchronous handling of conversion requests.  
○ Filed US **Patent** titled "Conversion Quality Evaluation For Digitized Forms" for measuring Key Performance Indicators for form conversion.  
○ **Tools and Languages:** Tensorflow, Caffe, OpenCV, RabbitMQ, Tesseract, Docker, Python, Scala, AngularJS, Fabric.js, WSGI.

Aug 2015–Mar 2016 **Master's Thesis, IIT Kharagpur.**  
Title : Analysis of Citation Context Copying Behaviour.  
Guides : Prof. Pawan Goyal and Prof. Animesh Mukherjee  
○ Performed several author-level and paper-based analyses to find the copying patterns of citation contexts.  
○ Divided authors into different groups according to the h-indices values and found different patterns for different groups.

- Aug 2014–Apr 2015 **Bachelor's Thesis, IIT Kharagpur, .**  
 Title : Enriching Flat Citation Networks.  
 Guides : Prof. Pawan Goyal and Prof. Animesh Mukherjee
- o Collated a massive dataset of 26 million citation contexts.
  - o Developed features from citation contexts and incorporated features in stratified learning framework to predict future citation.
  - o Paper published in CIKM, 2015.
  - o **Tools and Languages:** NLTK, SVR, Python, SQLite.
- May 2014–July 2014 **Cloud Security Defender, IBM, India, Bangalore.**  
 Guide : Sreekanth Iyer
- o Surveyed various security vulnerabilities and existing solutions and their shortcomings.
  - o Proposed and implemented efficient solution for securing applications, containers and virtual machines from security attacks.
  - o Hosted the service on IBM Bluemix.
  - o **Tools and Languages:** Nginx, Docker, Redis, IBM Bluemix, OpenStack APIs, Python, Java, Angular.js.
- May 2013–July 2013 **Recommendation Systems, Sigmoid Analytics, India, Bangalore.**  
 Guide : Sreekanth Iyer
- o Developed Music and Movie based recommendation system using collaborative filtering on public datasets.
  - o Implemented a rich web interface and leveraged Apache Spark for fast processing.
  - o Implemented Association Rule Mining Apriori Algorithm module in scala.
  - o **Tools and Languages:** Scala, Apache Spark, Hadoop, MLlib, Javascript.

## Key Academic Projects

- Spring 2015 **Peer to Peer Systems.**  
 Guide : Prof. Arobinda Gupta
- o Developed a hybrid distributed framework for file sharing, parallel downloading with 4 superusers.
  - o Implemented a chat server for communication among users.
- Spring 2015 **Continuous Summarization of Evolving Tweet Streams.**  
 Guides : Prof. Animesh Mukherjee and Prof. Pawan Goyal
- o Clustered tweets using Canopy Clustering and implemented a method for generating online summaries for the clusters at any point of time.
  - o Compared quality of summaries generated against existing algorithms.
- Autumn 2014 **Real Time Automatic Highlight Generation for Cricket Matches and Sentiment Analysis for corresponding tweets.**  
 Guide : Prof. Pawan Goyal
- o Developed features for classifying cricket commentary and automatically generated highlights for cricket matches.
  - o Performed Sentiment Analysis of tweets about cricket matches and generated profiles of teams/players over a period of time.
- Autumn 2014 **ConQuest.**  
 Guide : Prof. Pabitra Mitra
- o Designed and developed an online one player board based warfare game.
  - o AI uses mini-max algorithm with  $\alpha$ - $\beta$  pruning along with probabilistic heuristics to determine next move.

## Teaching Assistant

- Spring 2016 **Introduction to Software Engineering, Prof. Partha Pratim Das.**  
 o Assisted the professor in conducting a workshop for Eclipse/Visual Studio for second year students, creating model solutions for laboratory and test assignments and their evaluation, marking test scripts and invigilating for examinations.
- Autumn 2015 **Compilers, Prof. Partha Pratim Das.**  
 o Assisted the professor in creating model solutions for laboratory and test assignments and their evaluation, marking test scripts and invigilating for examinations.

## Technical Skills

Languages **Advanced** Python, C, C++, Java **Intermediate** Scala, Prolog, Verilog, Angular.js  
 Packages Hadoop, OpenCV, Spark, Docker, Tensorflow, Keras, Caffe