

# Meghanath Macha.

H-201,HJB Hall of Residence, IIT Kharagpur

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## Education

### SCHOLASTIC ACHIEVEMENTS

- Undergraduate Studies – Indian Institute of Technology, Kharagpur.
  - Integrated MSc. Mathematics and Computing.
  - CGPA: 8.59 /10 (at the end of 8th semester).
  - Department Rank 2 (out of 40 students)
- Higher Secondary Examination – April 2009 (BIE, Andhra Pradesh, India)
  - Aggregate: 93.90%
  - Mathematics: 97%, Physics: 99%, Chemistry: 97%
- Secondary Examination – April 2007 (CISCE, Andhra Pradesh, India)
  - Aggregate: 91.2%
  - Mathematics: 98%, Computer Science: 98%

### AWARDS AND HONORS

- Secured rank in top 0.01% in the All India Entrance Examination for Engineering (2009)
- Secured rank in top 2% in Indian Institute of Technology – Joint Entrance Examination (2009).
- Awarded Best Student in 2004, 2005, 2006 in my school for Academic excellence.

## Internships and Research Experience.

### Visitor Classification based on Clickstreams.

May 2013 – July 2012

*Adobe Advanced Technology Labs, Bangalore, India.*

In this project we built two models which could classify the visitor sessions on a website based on their Click-stream information. One of the models involved learning similarity metric between the sessions using a Metric Learning technique and the other used a Hidden Markov Model approach to predict the class of a visitor. Our model out-performed Support Vector Machine and Random forest in terms of both precision and recall.

*Mentor: Mr. Deepak Pai, Research Scientist, Adobe Advanced Technology Labs, Bangalore, India.*

### Recommender System based on gaming profile.

May 2012 – July 2012

*Ubisoft – UdeM Chair, University of Montreal, Canada.*

In this project I built a Recommender system which would suggest users a list of gaming inventory to purchase based on his gaming profile. This was achieved by a Supervised Multi Layer Perceptron model using deep learning techniques.

The model out-performed the existing model significantly in terms of precision.

*Mentor: Professor Yoshua Bengio. Head of Machine Learning Laboratory, University of Montreal, Canada.*

### Classification of Webpages.

May 2011 – July 2011

*Chitika Online Advertising Network, Hyderabad, India.*

In this project I built a Classifier which could classify a given web page into pre-defined categories based on the content of the web page. This was achieved by a Co-training model which considered the text on a web page and the hyperlinks present on the web page as two views of the data.

The model accurately classified 1 million web pages with 96.5% accuracy.

*Mentor: Mr. Warren Noronha, CTO, Chitika India.*

<b>Papers and Patents.</b>	
<ul style="list-style-type: none"> <li>Filed an Invention Disclosure titled “Method for finding Similarity of Users” which was internally approved by Adobe Patent Department. ( 5% Approval rate )</li> <li>Will be submitting a paper titled “Visitor Classification using Clickstreams” to WSDM 2014 Conference.</li> </ul>	
<b>Ongoing Research Projects.</b>	
<b>Analysis of Sequence in Clickstreams.</b>	July 2013 - Present
<p>IIT Kharagpur - Kharagpur, India.</p> <p>As a part of my Master’s thesis we are currently looking to find interesting insights based on the path a user has taken on a web site.</p> <p>Mentors: Prof. Niloy Ganguly, Department of Computer Science and Engineering, IIT Kharagpur .</p> <p>Prof. Somesh Kumar, Department of Mathematics, IIT Kharagpur.</p>	
<b>Entity extraction from an unstructured webpage.</b>	July 2013 - Present
<p>IIT Kharagpur - Kharagpur, India.</p> <p>I am presently exploring named entity extraction from an unstructured web page. These entities along with the clickstream information of the visitor could be used to provide better recommendations and help in better classification of the visitors on a certain web site.</p> <p>Mentor: Prof. Sudeshna Sarkar, Department of Computer Science and Engineering, IIT Kharagpur.</p>	
<b>Technical skills</b>	
<b>LANGUAGES</b>  <b>SOFTWARE &amp; TECHNOLOGIES</b>	<ul style="list-style-type: none"> <li>Programming Languages: C, C++, R, Octave, Assembly Language and Java.</li> <li>Scripting Languages: Python, Shell Scripting (Linux).</li> <li>Platforms: Microsoft Windows, Linux.</li> <li>Big Data Technologies: Hadoop, Hbase (No SQL database management system.)</li> <li>Web Technologies: JavaScript, jQuery, MySQL, Nodejs, PHP and HTML.</li> <li>Software Tools: LaTeX, Photoshop.</li> </ul>
<b>Positions of Responsibilities in my Hall of Residence.</b>	
<b>Position Held.</b>	<b>Responsibilities.</b>
<b>Hall President (2012 - 2013)</b>	Highest Student Representative in the Hall. Student Senate Representative.
<b>General Secretary Technology (2011 - 2012)</b>	Organization of Technological events in the Hall.
<b>Secretary, Technology (2010 – 2011)</b>	Co-ordination the organization of technological events in the Hall.
<b>Relevant Coursework</b>	
<b>Computer Sciences</b>	Design and Analysis of Algorithms*, Object Oriented System Design*, Foundations of Computing, Graph Theory, Theory of Compilers. Operating Systems*, Computer Organization and Architecture, Database Management Systems*, System Programming*, Programming and Data Structures*.
<b>Mathematics</b>	Probability and Statistics, Stochastic Processes. Linear Algebra, Discrete Mathematics.
*Indicates course had a Laboratory component as well.	