

# Apurva PATHAK

## PERSONAL DATA

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PLACE AND DATE OF BIRTH: Jashpur Nagar, India | 10 July 1991  
ADDRESS: Building 2, Microsoft Campus, Gachibowli, Hyderabad-32, India  
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## OBJECTIVE

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To build a career in the field of Computer Science which can accommodate my knowledge of Machine Learning and Data Mining.

## EDUCATION

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APRIL 2013 Undergraduate (Bachelor of Technology) in COMPUTER SCIENCE & ENGINEERING  
**National Institute of Technology**, Rourkela, India  
CGPA: 9.50/10 - 2<sup>nd</sup> in the department out of 75 students

APRIL 2009 High School (Class 12) at **Krishna Public School**, Bhilai, India  
PERCENTAGE: 90.0%

APRIL 2007 Secondary School (Class 10) at **Deosharan Public School**, Jashpur, India  
PERCENTAGE: 88.0%

## AREA OF INTEREST

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Machine Learning, Data Mining, Artificial Intelligence

## RESEARCH EXPERIENCE

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OCT '14 Presented a paper on *Clustering based approach to improve diversity and novelty of RS* at **Practice of Machine Learning Conference, Redmond** organised by Microsoft Research.  
I proposed a hierarchical clustering based approach to recommend novel and diverse items with minimal loss of precision for recommender system.

JAN - APRIL '13 Designed an algorithm, *S-SIFT*, for feature extraction from iris image. | Advisor: Prof. Banshidhar MAJHI, NIT Rourkela  
Proposed an algorithm by combining S Transform and Scale-Invariant Feature Transform (SIFT) to extract features from iris image. The matching accuracy of the proposed algorithm was found to be at par with the other state-of-art feature extraction algorithms. This algorithm is included in my final year research thesis.

JULY - DEC '12 Designed an algorithm for reduction of noise due to specular highlights during Iris Segmentation. | Advisor: Prof. Banshidhar MAJHI, NIT Rourkela  
This algorithm is included in my final year research thesis.

MAY - JUNE '11 A research project on *Model based regression test case selection technique* as a part of summer research fellowship program at **Indian Institute of Technology, Kharagpur**. | Advisor: Prof. Rajib MALL, IIT Kharagpur  
The work mainly consisted of understanding and implementing the dependence algorithms of program model for regression test case selection.

## PUBLICATIONS

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1. **Pathak, Apurva**, Patra, Bidyut Kr. *A City Traffic Dashboard based on Social Network Data*. 2015  
Conference on Data Sciences 2015, IKDD, ACM [Accepted]
2. **Pathak, Apurva**, Patra, Bidyut Kr. *A knowledge reuse framework for improving novelty and diversity in recommendations*. 2015 | URL: <http://dx.doi.org/10.1145/2732587.2732590>  
Conference on Data Sciences 2015, IKDD, ACM
3. **Pathak, Apurva**, et al. *Clustering based approach for balancing diversity and accuracy in collaborative filtering*. 2014 | URL: [http://ds2014.ijs.si/lbp/DS2014\\_LBP\\_Pathak.pdf](http://ds2014.ijs.si/lbp/DS2014_LBP_Pathak.pdf)  
Late breaking paper. Discovery Science 2014
4. **Pathak, Apurva**. *Recognition using SIFT and its Variants on Improved Segmented Iris*. B.Tech. Thesis. 2013. | URL: <http://ethesis.nitrkl.ac.in/5323/1/109CS0171.pdf>  
B. Tech. thesis. Ethesis, NIT Rourkela

## WORK EXPERIENCE

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Current JULY '13	Software Engineer at MICROSOFT, India Worked as an architect and developer on various projects: Readiness Management System, Build and Packaging tool for Windows SE and Ordering application for Microsoft's partners.
APRIL - JULY '12	Summer Intern at MICROSOFT, India Developed <i>Generic Service Host</i> , a tool that builds and hosts WCF services at runtime. Received pre-placement offer from the Microsoft IT as a result of very positive review.
DEC '11 - JAN '12	Winter Intern at TARAGANA INC., Kolkata, India Developed a CRM mobile application for Symbian, Blackberry and Android that tracks user activities and uploads it into cloud.

## TEACHING EXPERIENCE

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JULY '11 - APRIL '13	Delivered weekly lectures on C, C++ and Java to the students of NIT Rourkela as a member of <i>Createur club</i> of NIT Rourkela
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## LANGUAGES

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ENGLISH:	Fluent
HINDI:	Mothertongue

## TECHNICAL SKILLS

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Programming Languages:	C, C++, Java, C#, Python, SQL, PL/SQL, R
Engineering Tools:	Matlab, Octave, Weka
Platforms:	Windows, Linux
Other Tools:	Microsoft Office entire suite, $\text{\LaTeX}$ , Netbeans, Eclipse, Visual Studio

## AWARDS AND ACHIEVEMENTS

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1. First runners up in Conference on Data Sciences 2015 Data Challenge.
2. Acknowledged with *IT Excellence Award* in 2013. It is awarded to top 1% Microsoft employees based on performance.
3. Scholarship for best industrial internship by NIT Rourkela in 2012.
4. Fellowship for summer research project at IIT Kharagpur in 2011 by IIT Kharagpur.

5. Won 2<sup>nd</sup> prize from the East zone in the 1st round of *Nexus 2011*, an International Robotics Competition organized by IIT Mumbai.
6. Won the 2<sup>nd</sup> prize in *Overnite Coding Competition* in the Tech Fest 2010, NIT Rourkela
7. Won the 2<sup>nd</sup> prize in *Encash Your Code* (programming contest) in 2010 at NIT Rourkela.
8. Secured All India Rank 32 in the first phase of *International Informatics Olympiad* in 2009.

## EXTRA-CURRICULAR ACTIVITIES

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1. Lead of *Education committee*, in Microsoft for the year 2014.
2. Vice President of *Createur club* of NIT Rourkela between 2011-2013.
3. Member of *Cyborg*, the Robotics club of NIT Rourkela.
4. Volunteered for community services as a member of National Social Services at NIT Rourkela.
5. Coordinated several cultural and technical events at NIT Rourkela.