

# Saket Saurabh

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## OBJECTIVE

Seeking a full-time position in a technology-driven company. Special interests in Databases, Data Management and Big Data Analytics.

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## EDUCATION

### Currently enrolled in M.S. in Computer Sciences, May 2017

*University of Wisconsin - Madison*

Overall GPA: 4.0 / 4.0

Relevant Courses: Topics in Database Management Systems (CS 764), High Performance Computing (CS 759)  
Advanced Operating Systems (CS 736), Machine Learning (CS 760)

### Bachelor of Technology in Computer Science & Engineering, May 2012

*Indian Institute of Technology (IIT) Roorkee, India*

Overall GPA: 8.96 / 10.00      Major GPA: 9.22 / 10.00

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## EXPERIENCE

### University of Wisconsin, Madison

August 2015 - Present

*Graduate Research Assistant*

- Currently working as a Research Assistant with Prof. Jignesh Patel in Quickstep Database Project on implementation of streaming analytics for window-based queries in main-memory database systems.

### Adobe Systems, India

July 2012 - August 2015

*Senior Member of Technical Staff*

- Worked as a Big Data Engineer for Adobe Consumer Analytics team, which was responsible for delivering business insights & analytics for various Adobe consumer products.
- Collaborated in a team of three to develop a fault-tolerant scalable ETL pipeline solution that could ingest & process terabytes of data using Hadoop MapReduce, Hive and Pig over Amazon AWS infrastructure.
- Independently worked on integrating Amazon Redshift with MongoDB to build a cost-effective data warehouse solution that could run rapid analytics on transactional data stored in MongoDB.

### IBM India Research Labs, New Delhi, India

May 2011 - July 2011

*Research Intern*

- Developed and implemented a novel text-mining algorithm to discover intent and summary of a customer-agent interaction based on its call transcript. (*U.S. Patent 20130339021 A1*)

### University of Minnesota, Twin Cities Campus, Minneapolis, MN

May 2010 - July 2010

*Research Intern*

- Worked on a time series data mining project to improve the accuracy of the existing land-cover change detection algorithms for Earth Science datasets.

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## SKILLS

<b>Core Languages</b>	Java, C, C++
<b>Scripting Languages</b>	Node.js, PHP, Bash, Python
<b>Backend Technologies</b>	Amazon Web Services, Spring MVC, Nginx, ExpressJS
<b>Databases</b>	MySQL, MongoDB, PostgreSQL, DynamoDB
<b>Big Data Analytics</b>	Hadoop MapReduce, Hive, Pig, Amazon Redshift

## RECENT PROJECTS

### **Implementation of bloom filter for main-memory Quickstep database to improve query performance**

*With Prof. Jignesh Patel, University of Wisconsin - Madison*

- Designed and implemented bloom filters for block-organized main-memory Quickstep database, which resulted in multi-fold improvement in querying time for equality based predicates.

### **Performance evaluation of Anti-Caching data stores over MySQL-based systems**

*With Prof. Jeff Naughton, University of Wisconsin - Madison*

- Analyzed the effects of newly proposed anti-caching mechanisms in recent data stores like H-Store that selectively push cold tuples to disk, against using large buffer pools in MySQL-based systems.

### **Parallelization of image recognition with neural networks over GPU using CUDA Runtime**

*With Prof. Dan Negrut, University of Wisconsin - Madison*

- Implemented from scratch an image recognition tool that employed a natively written CUDA kernel to parallelize learning over sigmoid neurons using gradient descent and backpropagation.

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## PATENTS / AWARDS

### **Patents**

Om D. Deshmukh, Sachindra Joshi, Saket Saurabh, Ashish Verma. '*Intent Discovery in Audio or Text-Based Conversation*' U.S. Patent 20130339021 A1, Dec. 19, 2013

### **Awards**

Institute medal for '*Best Undergraduate Project in Computer Science and Engineering*' for the project '*Indexing and Mining of Time Series Databases with Applications on Massive Datasets*'

Best Poster Award at IBM I-CARE Centennial Colloquia 2011 Workshop held at New Delhi, India in Smarter Cities Track for the work on '*Symbolic Proportionate Approximation for Locally Data Adaptive Representation in Large Time Series Databases*'