

# ASHIS KUMAR SAHOO

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## PROFESSIONAL EXPERIENCE

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**Software Developer Intern (Co-op)** at IBM, Durham, NC, USA JUN 2017-Present

- **IBM Care:** Identified Machine Learning use cases for predicting events in the application. Integrated IBM Watson and developed several software components and enhancements to improve user experience.

**Lead Software Developer (Full-Stack Developer)** at Tata Consultancy Services Ltd, Kolkata, India JUL 2011 - JUL 2016

- **IOT Middleware Management System:** Created real-time visualizations (d3, AJAX), integrated REST services, user experience with Bootstrap and jQuery, implemented user management and authorization.
- **Enterprise Transport Management Solution:** Designed and Implemented real-time Google maps, dashboards, user reports on J2EE stack with Bootstrap, jQuery. Designed PostGre Database with automatic data archival. Built to scale for 33000+ employees.
- **Automated Parking Management Solution:** Developed a low cost Digital Signage alternative with Raspberry Pi, real-time dashboards with remote manager on J2EE stack.
- **Building Evacuation Tracking POC:** Implemented a Proof of Concept (POC) to test feasibility of RFID Tags based system for real-time identification and tracking of people during building emergencies.

## RECENT PROJECTS

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**Graduate Student, North Carolina State University** AUG 2016-Present

- **Hacker Earth Data Challenge:** Built a predictive model to accurately predict fares of taxi ride. Was in top 10% of the participants.
- **A Comparative Approach to Multi-label Text Classification:** Building a predictive model for classifying news articles into multiple labels using various algorithms such as Binary Relevance, Classifier Chains etc.
- **Recommender System via Graph Embedding:** Using graph embeddings and Word2Vec to create an advanced recommender system for movies.
- **Sentiment Analytics with Supervised Learning:** Implemented sentiment analysis over IMDB movie reviews and Twitter data using machine learning libraries like scikit-learn in Python.
- **Manufacturer Retailer Price Causal Inference:** Analyzing data to find Causal Relationships between attributes using PC and LINGAM algorithms.
- **Music Recommender System:** Developed ALS algorithm based recommender system suggesting artists based on users' play data, using Apache Spark and Python.
- **Twitter Sentiment Analytics:** Implemented basic twitter sentiment analytics based on lists of positive and negative words using Apache Spark Streaming APIs, Kafka and Python.

## EDUCATION

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**Master of Computer Science**, North Carolina State University AUG 2016 – MAY 2018 (Expected)

Courses – Data Guided Business Intelligence, Foundations of Data Science, Artificial Intelligence, Advanced Data Structures, Database Management Systems, Algorithms, Advanced Learning Data Analysis, Advanced Machine Learning, Data Intensive Computing

**Bachelor of Technology in Computer Science**, VSSUT, Odisha, India JUL 2007 – MAY 2011

## TECHNICAL SKILLS

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**Expertise:** R, Python, Machine Learning, scikit-learn, Angular 1.x, Maven, MongoDB, Java/J2EE Stack, Struts, HTML, CSS, JavaScript, AJAX, jQuery, Bootstrap, SQL (Oracle, Postgres, MySQL), Agile practices.

**Also knows:** Apache Spark, C, C++, UNIX/Shell Scripting, Google API, Tomcat, Subversion, Github

## RESEARCH PUBLICATIONS

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- **Tabu Search Algorithm for Core Selection in Multicast Routing: IEEE Xplore (CSNT 2011)**  
Developed Simulation and implemented various candidate algorithms, proposed modifications, and created setup for comparative testing of the algorithms in C++.

## AWARDS AND ACHIEVEMENTS

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- Class Topper at TCS Training period '11 – Hyderabad, India.
- 97 Percentile in Graduate Aptitude Test in Engineering (GATE)
- Winner, Paper Presentation, Ideation '15 – TCS Bhubaneswar.
- First Runner Up, C Coding in Samavesh 2009 – VSSUT Burla.
- Finalist, Robocon (India) – International Robotics Contest
- Competent Communicator and Leader – Toastmasters International