# SWARAJ KHADANGA *May 23, 1994*

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Graduate Student in Data Science at University of Minnesota, Twin Cities

## Education

University of Minnesota, Twin Cities — Minneapolis, USA
**Masters of Science, Data Science** — *Fall 2017*

National Institute of Technology, Rourkela — Rourkela, India
**Bachelor in Technology in Computer Science & Engineering** — *2011 – 2015*
- First Class with honors. CGPA - 8.16/10
- Member of Association for Computing Machinery (ACM)

Kalinga Bharati Residential College — Cuttack, India
**Higher Secondary School** *(Secured 85% marks)* — *2009 – 2011*

## Research Interests

Machine Learning, Deep Learning, Large Scale Data Processing

## Employment

Microsoft R&D India Pvt Ltd — Hyderabad, India
**Software Engineer** — *July 2015 – present*
- I worked as a full stack engineer/data analyst for Microsoft Business Solutions. Key role was to analyze data and further develop features to improve overall experience of the supply chain for Dynamics products. *Using .Net/Python, Azure Cloud, SQL/NoSQL technologies.*

Microsoft R&D India Pvt Ltd — Hyderabad, India
**Software Engineer Intern** — *May 2014 – July 2014*
- Developed a mobile application, which was capable to read data from Servers which were inside Microsoft firewall. Challenge was security, and data was to be securely exposed to a specific group of field engineers in order to ease their efforts and reduce turnaround time.

## Skills

- Sound knowledge of Data Structures and Algorithms.
- Experience in Object Oriented Programming and Design.
- Proficient in Python with related Machine Learning and Data Analysis modules.
- Familiar with Deep Learning concepts and tensor-flow implementation.

## Projects

**Windows Store App Rating and Review Analysis using Sequence Modeling and 1D ConvNet** *July 2016 – August 2017*

The goal is to predict the authenticity of a user's rating against assosiated review comment by analyzing sentiment. Different state to art models were trained and tested. I used RNN, LSTM and 1D ConvNet based models and finally ensemble them to obtain the best accuracy. Required data was crawled from Microsoft Windows Store using Pyhton Scrapy framework.

**Customer Data Analysis of Microsoft Business Solution (Microsoft R&D India)** *May 2016 – July 2017*

*[Supervisor: Bhupesh Guptha Muthiyalu - Sr. Software Engineering Lead]* In this project we predicted the potential MBS Dynamics customers who would migrate from onprem servers to cloud. Using demographic information, transaction history and purchase pattern, we had suggested a predictive model using gradient boosting algorithm and implemented using python data science toolkit. The result helps the accounting managers to increase cloud adoption by approaching the potential customers.

**Large Scale Graph Processing And Personalized Page Rank Calculation Using MapReduce (NIT, Rourkela)** *September 2014 – April 2015*

*[Under the guidance of Prof. Manmath Narayan Sahoo]* This research project presents an efficient algorithm to calculate topic sensitive page rank using MapReduce. This was experimented using python in Microsoft HDInsight Hadoop cluster using Wikipedia dataset. Additionally, Different text mining techniques are applied to assign each Wikipedia page to one of the predefined topics.

**Hi Buddy (Hackathon, Microsoft R&D India)** *March 2016 – May 2016*

*[Swaraj Khadanga,Sourav Dash,Bhupesh Guptha]* Hi Buddy is a Mirosoft internal virtual assistant to address the employees' queries. This is developed using Skype bot framework and Cognitive APIs and uses a retrieval based model.

**Inter Company Ordering (Microsoft R&D India)** *November 2015 – May 2016*

*[Supervisor: Bhupesh Guptha Muthiyalu - Principal Software Engineering Lead]* Goal was to build a back-end order processing system which summarizes partners' orders in Dynamics AX and create inter company order in SAP to accommodate the *Least Risk Distribution* model. The solution was highly fault tolerant, secure and efficient to handle sensitive business data, which was built using Azure Service Bus, Worker Roles,SQL Server and REST Apis.

**Project Guide Allocation System (NIT, Rourkela)** *September 2013 – December 2013*

*[Under the guidance of Prof. K Satyababu]* Project Guide Allocation System is a tool which is used to allocate each student one project guide based on teachers' preferences and students' academic profile and research interest. The tool captures the input from both the student and professor, and then assigns each student one professor. The problem was mapped to a maximum weighted bipartite matching problem for optimal allocation.

## Awards and Acheivements

**Semifinalist at ACM International Collegiate Programming Contest Asia Region – 2013 & 2014** Few teams from all over India were selected for this algorithmic competition.

**Software Engineering Peer Award – 2016** Awarded for reducing the deployment time by running the post deployment tests in parallel in a cluster.

**Popular Choice Award – 2016** Skype Bot HiBuddy got the popular choice award at Microsoft - INDIA during hackathon.

## Services

**Organized A Cleaning Campaign – November 2015** As a member of social group in Microsoft, I lead a campaign to clean few places at Hyderabad. Many people from the campus and different schools joined in the campaign and made it successful.

**Organizer of The Giving Campaign by Microsoft R&D India – 2016** The Giving Campaign is a charitable sports and fun event organized by Microsoft R&D India for employees.

**End Polio Camp – 2015** *End Polio* camp was organized worldwide by Rotary club to enable polio vaccination to a large population. I volunteered in the *End Polio* campaign in Nabarangpur.