

# Mrityunjay Kumar

Skype: mrityunjay.kumar.tal

Email : mjaycse@gmail.com

Mobile : +91-8800300687

## EDUCATION

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- **Maulana Azad National Institute Of Technology** Bhopal, India  
*Bachelor of Technology in Computer Science and Engineering; GPA: 7.85/10.0* *Aug. 2010 – May. 2014*

## PROGRAMMING SKILLS

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C, C++ , Python	●●●●●●●●
NLTK, Sci-kit, NumPy	●●●●●●●●
Data Structure and Algorithms	●●●●●●●●

## EXPERIENCE

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- **Talentica Software** Pune, India  
*Software Engineer - Data Science* *April 2016 - Present*
  - **Cloud Sync Application:** [Python,C++,File System]  
  
Smart File system service to allow two way delta sync  
Key Features:
    - Add and remove origin folders to sync
    - Push Annotated files back to user
    - Multi-platform silent auto-update framework
    - Sharing of content across Multi-tenant architecture
  - **Search Engine:** [Machine Learning,NLP,Deep Learning, Python,Neo4j]  
  
A topic modelling based domain specific search engine model for handling large documents and providing intent based search retrieval.  
Key Features:
    - On-line Ontology enhancer & Parser
    - Designed in-line query expansion w.r.t Ontology
    - Used LDA/LSA to generate document vectors
    - Used graph DB for faster query processing and retrieval
    - Automated ontology formation based on domain knowledge
    - Clustering of documents with deep learning to understand the underneath context
  - **Image Processing:** [Machine Learning,OpenCV]  
  
A POC which runs various ML algorithm on image data  
Implementations Done:
    - Clustering all color patterns contained in image logo
    - Identifying mobile numbers in scanned pdf
    - Extracting normal text from images
- **Mediatek** Noida, India  
*Software Engineer* *Aug 2014 - April 2016*
  - **Audio Player:** [C,MTK Native OS]  
  
Entitled Major Ownership for Audio player in feature phones  
Role and Responsibilities:
    - Implementation of new requirements and assisted bug resolution
    - Implemented user defined play list [generation,delete,sharing]
    - Implemented new BT stack into Audio Player
    - Modified AUDIO Play engine for asynchronous event handling

- **Combo Tool:** [C++,MFC,PCAP,OS Native Layer]

GUI Tool for processing modular commands for various system level test.

Key Features:

- Implemented wrapper for WIN32 API for interacting with POSIX lib
- Implemented event driven asynchronous architecture
- Implemented packet data interfaces : Serial, RS232, Ethernet, USB

- **GPS Logger:** [Java,GPS Port Layer]

GUI Tool for monitoring online NMEA data from GPS Port.

Key Features:

- Designed a pipeline system where Logger tool and android application can run benchmarking test cases.

## ACADEMIC / PERSONAL PROJECTS

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- **Product feature and Opinion extraction of Amazon dataset:** Prof. Saritha Khetawat  
[NLTK,Python]

- Implemented Logistic regression to model product sentiments using HMM
- Implemented detection of explicit features and opinion extraction in dataset
- Used graph DB to store the reviews about features

- **Semantic Orientation Of Twitter Data :** Prof. Saritha Khetawat  
[Java,Stanford Parser,Senti-wordnet,ML]

- Implemented classification for important aspect about a tweet
- Implemented semi-supervised score provider word polarity
- Listed user provided sentiment for key features about particular product.

- **Personal computer Assistant :** [Python-falcon,ML-msg.ai,C++]

Key Features:

- GUI Tool for quick access to recent activities at PC.
- Maintaining permanent system cache for all favorite processes
- Desktop service : Playing music/movies/finding docs
- Web services : Top rated movies at IMDb,Wikipedia keyword information,Dictionary

## CERTIFICATION & MOOC'S ATTENDED

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- **Machine Learning Specialization :** COURSERA [2/5]
- **Machine Learning :** COURSERA [3/5]
- **Basic Statistics :** COURSERA [completed]
- **Probabilistic Graphical Model :** COURSERA [1/3]
- **Python for Everybody Specialization:** COURSERA [completed]