

Mrityunjay Kumar

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EDUCATION

- **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

C, C++ , Python	●●●●●●●●●●
Nltk, Scikit, NumPy	●●●●●●●●●●
Keras, tensorflow, tflearn	●●●●●●●●●●
PySpark, Storm, Celery	●●●●●●●●●●
Data Structure and Algorithms	●●●●●●●●●●

EXPERIENCE

- **Talentica Software** Pune, India
Senior Software Engineer - Machine Learning April 2016 - Present
 - **Throughput Estimation of network Pipeline:** [XGBoost,PySpark,tpot]

Developed a data driven model for predicting network throughput in live environment
Key Features:
 - Mimicked network parameters to capture WAN and LAN characteristics to procure the throughput
 - Automated Lazy Loading of AWS model instance in storm machines
 - Achieved : 97% Accuracy in high range speed & 78% Accuracy in Low range speed
 - **Machine Learning as a service:** [Python,Celery, Redis, Keras]

Developed a boilerplate for training and running Machine learning algorithms in service layer
Key Features:
 - A Scalable platform for API based triggering of Machine Learning model training & serving
 - Detached architecture for managing ML Services
 - Object based serializer for IPC, availing unified view of obtaining hollow and trained models
 - **Indoor Location Positioning:** [Python,tensorflow, Spark]

Developed Indoor locatization tracking model for static and live assets
Key Features:
 - Static Assets - A data driven probabilistic region classification
 - Live Assets - Regression based on region triangulation using RSSI and the interference correction
 - **Single cell Identity Classification:** [Python,opencv,tensorflow]

Developed automated single cell detection using neural networks
Key Features:
 - Modelled a novel approach for detecting structure of single cells with 83% accuracy
 - **NLP Pipeline:** [Python]

Developing extensive Language Processing pipeline model
Key Features:
 - A Novel algorithm for unlabelled text modelling
 - Keyword Extraction and Text Classification
 - External Integration : Slack Bot, Alexa Skills
 - External Model Training Framework : RASA NLU, wit.ai
 - **Cloud Sync Application:** [Python,C++,File System]

A File system service which allows selective two way delta sync
Key Features:
 - Multi-platform silent auto-update framework
 - Sharing of content across Multi-tenant architecture

- **Search Engine:** [Machine Learning,NLP, Python,Neo4j]

A topic modelling based domain specific search engine model for handling large documents and providing intent based search retrieval.

Key Features:

- Online Ontology enhancer & Parser
- Designed in-line query expansion using Ontology
- Used graph DB for faster query processing and retrieval
- Automated formation ontology based on domain knowledge
- Clustering of documents with deep learning to understand the underneath context

• 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]
- Integrated new BT stack into Audio Player

- **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.

PUBLICATIONS/JOURNALS

- **Learning to Fingerprint the Latent Structure in Question Articulation** Talentica Software, India
Kumar Mrityunjay, Guntur Ravindra *ICMLA 2018*

ACADEMIC / PERSONAL PROJECTS

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

CERTIFICATION & MOOC'S ATTENDED

- **Machine Learning :** COURSERA
- **Basic Statistics :** COURSERA
- **Deep Learning:** DATACAMP
- **Natural Language Processing:** COURSERA
- **Python for Everybody Specialisation:** COURSERA