Mrityunjay Kumar

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EDUCATION

STONY BROOK UNIVERSITY
M.S in Computer Science
Graduating MAY 2020
Stony Brook, NY
GPA: 3.52 / 4.0

MAULANA AZAD NATIONAL INSTITUTE OF TECHNOLOGY
B.Tech in Computer Science
Graduated
May 2014 | Bhopal, India
Cum. GPA: 7.85 / 10.0

LINKS

Facebook:// **mrityunjay2010**
Github:// **mrityunjaykumar911**
LinkedIn:// **mj2030**
Twitter:// **@mjay_nitb**
Quora:// **Mrityunjay-Kumar**

COURSEWORK

GRADUATE
Operating System
Distributed System
Computer Vision
Data Science Fundamentals
Data Visualization

UNDERGRADUATE
Information Retrieval
Natural Language Processing
Data Structure & Algorithms

TEACHING
Introduction to Data Science
Teaching Asst

SKILLS

PROGRAMMING
Over 3000 lines:
C • Python • C++
Familiar:
Java • Matlab •golang

TOOLS/TECHNOLOGY

NLTK • Scikit • NumPy • PySpark
Storm • Keras • tensorflow • protobuf
gRPC • Celery • Neo4j

RESEARCH

DISTRIBUTED SYSTEM LAB | Researcher
Jul 2019 – Present | Stony Brook, NY
Working with **Prof. Shuai Mu** and **Prof. Sebastian Angel** to develop a Distributed Multi-core Key-Value Database system based on Software Transaction Memory.

EXPERIENCE

TALENTICA SOFTWARE | Senior Software Engineer
April 2016 - Jan 2019 | Pune, India

- **Network Traffic Estimation**
  Implemented a regression model for bandwidth prediction. Lazy Loading of ML model instance in storm from AWS. In production.
- **Network Traffic Detection**
  Designed an auto-encoder based ML Module to detect the VOIP Traffic. Successful in Audio vs Video Traffic Detection. Failed in video based VOIP.
- **Single cell Identity Classification** Auto-encoder based neural network to identify the single cells with 83% accuracy. In Production.
- **Indoor Location Positioning for BLE assets**
  Static Assets - High accuracy in location prediction and classifying the region
  Live Assets - Low accuracy in Regression based on region triangulation using RSSI and the interference correction.
- **Machine Learning framework**
  Created a Framework for showcasing Novel ML Algorithms developed by team. Implemented object based serialization serving model. Provided gRPC & Json request.
- **Search Engine** Online Ontology enhancer & Parser. NLP Pipeline for Document Clustering, Keyword Extraction, Text Classification. In production.

MEDIATEK | Software Engineer
August 2014 – April 2016 | Noida, India

- Improved Audio Player sub-modules Playlist, Integrated BT Stack in MMI Layer
- Led Internal Tool Development - Designed and Wrote SW Layer code for Stress Test based Combo{GPS-WiFi-BT} Tool

ACADEMIC PROJECTS

- **Backup File System in Linux Kernel**
  Implemented stackable file system which takes created backup on every successful write/delete/rename having queue based version & retention policy. Any operations on backup file can be done via supplied utility tool only.
- **Encryption based System tool for Linux Kernel**
  Implemented system call for encrypt/decrypt file using AES provided by kernel crypto API.
- **Implemented Image Captioning Engine on Flickr8k dataset**
  Used CuDNNGRU and GloVE word embedding model on top of pre-trained VGGNet to generate caption for Flickr8k dataset; Used flask based REST API to provide interface for all query requests.

PUBLICATIONS

[1] R. Guntur and **Mrityunjay Kumar**. Learning to fingerprint the latent structure in question articulation. In *2018 17th IEEE International Conference on Machine Learning and Applications (ICMLA)*, pages 73–80, Dec 2018.