

# MRINAL TAK

mrinaltak.github.io

+1(512)466-8366 ♦ mtak@umass.edu

## EDUCATION

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**University of Massachusetts Amherst**  
MS in Computer Science

*Jan'21- Apr'22*

**Indian Institute of Technology Guwahati**  
B.Tech in Computer Science & Engineering

*2013-2017*  
GPA: 8.72

## INDUSTRY EXPERIENCE

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**Goldman Sachs (Sr. Software Engineer)**

Jan'19 - Jan'21

- Spearheaded redesign of Query Understanding Module and brought down the latency by 82%.
- Responsible for design and development of topic modeling to identify latent topics in financial documents using Gensim LDA library.
- Spearheaded the design and development of Hadoop Map-Reduce jobs to optimize the index files, which are to be loaded by the YARN application.

**Technologies Used:** Java 8, Hadoop, JUnit, YARN, REST, Python, Protocol buffers, IntelliJ, SVN.

**Samsung Research (Software Engineer)**

Jun'17 - Jan'19

- Spearheaded the development of Anti-counterfeit Engine, by building a fact checking pipeline.
- Delivered a scalable, optimized Conversational Intelligence Module for smart calendar, using NLP techniques.

**Technologies Used:** Java 8, JUnit, Keras, Python, IntelliJ, Github.

## PROJECTS

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**Entropy: Language Model Based Readability Metric**

*2017*

*Guide: Prof. Ashish Anand, Dept. of CSE*

Used KL divergence as a computational measure of readability of text.

**Convolutional Neural Networks based Video Surveillance System**

*2016*

*Guide: Prof. Arijit Sur, Dept. of CSE*

Used Hierarchical Convolutional features and Multi-Domain net, to build an object tracker.

## TECHNICAL SKILLS

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**Programming Languages**  
**Libraries and frameworks**  
**Softwares**

Java, Python, C++  
Hadoop, Keras, Protobuf, REST, Github, JUnit  
IntelliJ, MATLAB, Visual Studio, Android Studio,  $\text{\LaTeX}$

## COURSES COMPLETED

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- Database Management System
- Intelligent Systems & Interfaces
- Data Mining
- Computer Vision using ML
- Data structures
- Operating System
- Artificial Intelligence
- Algorithms
- Probability