

Thanmai Muvva

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EDUCATION

Indian Institute of Technology Hyderabad

Nov 2020 - Present

BTech in Engineering Science with Minor in Entrepreneurship

8.40/10

Relavant Coursework :

Data Structures and Applications, Algorithms, Operating Systems, Software Engineering, Computer Architecture, Computer Networks, DBMS, Theory of Computation, Artificial Intelligence, Foundations of Machine Learning, Deep Learning, Maths behind ML, Linear Optimization, Convex Optimization, Image and Video Processing, Data Science Analysis

WORK EXPERIENCE

Goldman Sachs

May 2023 - July 2023

Risk Analyst Intern, Risk Strats Division

Bangalore, India

- Improved the performance of existing Regression models in the CVA (Credit Value Adjustment) calculation engine using PCA dimension reduction and Nadaraya Watson Regression.
- Setup an API to periodically upload the pre-computed Risks to GRDB database and incorporated rotation methodologies to effectively reduce the computational resources.

PROJECTS

Institute Library Management System | *Software Engineering*

- Enhanced Koha open source library system to generate automated emails and messages as per institute's requirements.
- Developed a customized system to improve communication between the library and its users, and automate key tasks such as overdue notices, reservation confirmations, and account status updates.

Implementation of RDT and Web Cache | *Computer Networks*

- Implemented LRU web cache and RDT protocols (Stop and Wait, Go-back-N) for improved data transmission.
- Developed a Python-based HTTP system with integrated web caching for enhanced efficiency.

Coverless Image Steganography Generator | *Image and Video Processing*

- Proposed an improved Coverless Image Steganography techniques using dense-net retrieval and DWT computations.
- Developed front-end using Angular which takes an image as the input and generate steganographic images.

Comparison between Dimension Reduction Methods | *Machine Learning*

- A novel comparison between a combination of selection, clustering and extraction methods of features is done.
- Feature selection : Filter and Wrapper, Feature Clustering : CFSS, MIC, Feature Extraction : PCA, LDA, TSNE.
- Metrics of evaluation : Information loss, Classification Accuracy with SVM classifier and Runtime.

Gaming Applications | *Personal*

- Built a few static games such as Tic-tac-toe, Nine-Men Morris and Flappy bird using Pygame in Python.
- Designed and developed a video game in Unity 3D featuring a box navigating dynamic obstacles across multiple levels.

SKILLS

Programming Languages : C, C++, Python, Matlab, Kotlin

Libraries : STL, Numpy, Pandas, Scipy, Sklearn, Pygame, PyQt5

Databases : MySQL, PostgreSQL, MongoDB

Web Technologies : HTML, CSS, Javascript, React, NodeJS

Other Technical Skills : GIT, Solid Edge, Latex, Bash

EXTRACURRICULAR

- Represented IIT-Hyderabad at **All India Tinkerer's Lab Meet 1.0**.
- Secured **State Rank 193** in **TS Eamcet** among 1.4 Lakh students.
- Secured **All India Rank 3881** in **JEE Advance 2020** among 1.5 Lakh students.
- Secured **All India Rank 3943** in **JEE Mains 2020** among 8.9 Lakh students.