# MAHDIHUSAIN MOMIN

Analyst, Securities Division, Goldman Sachs Bachelors and Masters in Computer Science Indian Institute of Technology, Delhi

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## **EXPERIENCE**

#### **Analyst**

## **Goldman Sachs**

May 2019 - Present

- Part of Client Connectivity Team to build Low Latency Goldman Sachs Electronic Trading platform.
- Build and Productionized Regression Framework for Client Customization Rules.
- Build an Automated Test Generation Framework for FIX Client Order State Transitions.
- Working on adding Good Till Order support in new Trading Platform.

## **INTERNSHIPS**

#### Summer Analyst

#### **Goldman Sachs**

May 2018 - July 2018

- Created end-to-end health monitoring system for microservices.
- Deployed consul server and added service registration support in microservices.
- Created consolidated dashboard for microservices health monitoring using ReactJS.
- Deployed the application in integration environment.
- Received and accepted Pre-Placement Offer.

#### **Data Scientist**

#### **HSBC Software Development**

- Developed a machine learning model for user question answering from company database.
- Added support of feedback to the model.
- Demonstrated the use of the model to eliminate manual search time.
- Received Pre-Placement Offer.

## **PROJECTS**

### Social Network Analytics

# Prof. Sayan Ranu & Prof. Amitabha Bagchi

# January 2018 - May 2018

- Developed extremely fast algorithm to detect collusion on large social networks.
- $\bullet \ \ \mathsf{Algorithm} \ \mathsf{involves} \ \mathsf{identification} \ \mathsf{of} \ \mathsf{cohesive} \ \mathsf{subgraphs} \ \mathsf{over} \ \mathsf{a} \ \mathsf{period} \ \mathsf{of} \ \mathsf{time}.$
- Analyzed K-core as the definition of cohesive subgraph.
- Research paper to be submitted for review in KDD conference.

## Toy Self Driving Car

#### Raghavendra Singh, IBM India Research Lab

- Built a toy self driving car using Raspberry Pi and deep learning model.
- Collected the image dataset by driving car using remote control.
- Implemented lightweight convolutional neural network to make car turn decisions in real-time.

### Digital Makeup Transfer

#### Prof. Prem Kalra

September 2017 - October 2017

- Developed an automated tool to transfer makeup from one face to another.
- Used techniques such as face alignment, layer decomposition, skin detail, color transfer.
- Developed the application in python using OpenCV library.

### Unix Kernel Shell

#### **Prof. Sorav Bansal**

# January 2017 - April 2017

- Built a simple Unix based kernel from scratch in C++ and x86 assembly language.
- Designed a shell on VGA screen and included features like threads, coroutines, and scheduling

#### Artificial Intelligence bot for the deterministic strategy game - TAK

#### Prof. Mausam

🛗 September 2016 - November 2016

- Designed an AI bot for playing the deterministic strategy game, Tak.
- Implemented the bot using Adversarial Search algorithm Expecti-Minimax.
- Used alpha-beta pruning and heuristics to reduce depth of search.

## **ACADEMIC DETAILS**

Bachelors & Masters of Technology Computer Science & Engineering

Indian Institute of Technology, Delhi

**2014 - 2019** 

BTech CGPA: 7.586/10 MTech CGPA: 8.430/10

### **COURSES**

- Data Structures and Algorithms
- Analysis and Design of Algorithms
- Data Mining
- Machine Learning
- Deep Learning
- Natural Language Processing
- Extreme Classification
- Artificial Intelligence
- Numerical Algorithms
- Digital Image Analysis
- Optimization Methods
- Probability & Stochastic Processes
- Computer Networks
- Parallel & Distributed Programming
- Operating Systems
- Cloud Computing
- Database Management Systems
- Programming Languages
- Logic for Computer Science

## **TECHNICAL SKILLS**



# **CO-CURRICULAR ACTIVITIES**



#### Teaching Assistant

- Programming Languages (Spring 2019)
- Data Mining (Fall 2018)



## **Table-Tennis Hostel Captain**

Lead the hostel team in inter-hostel table-tennis tournaments (2015-2016)



#### NGO

Member of the Kanodar Yuva Group