# Yudhik Agrawal

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## EDUCATION

**IIIT HYDERABAD, INDIA**
B.Tech & M.S (By Research) in Computer Science & Engineering
August 2016 - April 2021

Cum. GPA : 8.95 / 10
M.S GPA : 9.75 / 10

## ACHIEVEMENTS

• **Dean's list awardee** for excellence in academics awarded to **top 5%** .
• Selected for the **Google AI Summer School, 2020** - Top 50 students in India.

**SPORTS PROGRAMMING**

• **Google Kickstart:** Secured **159**$^{th}$ Rank in 2019 round-F.
• **ACM ICPC:** Member of team **Brahmasmi** which secured **35**$^{th}$ Rank in ACM-ICPC 2019 online round.

**Codechef: //** yudhik Best: **2075**
**Codeforces: //** yudhik Best: **1893**

**HACKATHONS**

• **Amdocs'19 Winner** of Amdocs HackFest out of 5000 teams.
• **Alexa'18:** Ranked **3** in the Techgig CodeGladiator out of 3000 teams.

## SKILLS

**PROGRAMMING**

• C/C++(STL) • Python • Bash
• MATLAB • JAVA • JavaScript

**TOOLS & FRAMEWORK**

• PyTorch • Tensorflow • Flink
• LaTeX• AWS • GIT • MySQL

## COURSEWORK

Data Structures & Algorithms
Artificial Intelligence
Machine Learning
Optimization Methods
Computer Vision
Computer Graphics
Image Processing

Discrete Mathematics
Number Theory & Graph Theory

Advanced Computer Networks
Operating Systems
Database System
Distributed Systems
Computer System Architecture
Information Security

## EXPERIENCE

**SUMMER ANALYST** | Goldman Sachs
May 2020 – July 2020 | Bengaluru, India
Worked on Data Ingestion Enhancements in Data Pipeline Framework, and did further exploration which would benefit the project in future.

**RESEARCH ASSISTANT** | Cognitive Science Lab, IIIT-H
January 2020 – Present | Hyderabad, India
Currently working with Prof. Vinoo Alluri, on using music-induced movements to identify individual traits and also, improving song recommendation system.

**RESEARCH ASSISTANT** | Center for Visual Information Technology, IIIT-H
May 2018 – July 2020 | Hyderabad, India
Worked with Prof. Avinash Sharma, on 3D-Human Body Reconstruction, Registration and generating Temporally coherent Sequence of Human Action.

**TEACHING ASSISTANT** | IIIT-H
August 2018 – May 2020 | Hyderabad, India

- CSE481 - Optimization Methods — Spring 2020
- CSE251 - Graphics — Monsoon 2019
- IEC239 - Digital Signal Analytic and Application — Spring 2019
- ICS101 - Computer Programming — Monsoon 2018

The work involves explaining concepts of programming in tutorials, grading, making problem sets and, taking lectures.

## PROJECTS

**DEEP 3D-HM GUI** | PyTorch, 3D Reconstruction, Tkinter
Developed a Tk GUI toolkit which finds 3D mesh of a human body from a monocular RGB Image/Video using state-of-the-art Deep Learning network.

**STACK OVERFLOW USERQUERY** | Tensorflow, NLP, Django
Developed a search bar on top of the StackOverflow API which provides more relevant thread results based on the search and also re-order the answers based on various NLP techniques like text-similarity(USE), statistical analysis and semantic analysis.

**AMDOCS VIDALYSIS** | Python, API, Scripting
Developed a Software-as-a-Service which can analyze/interpret the video, trimming relevant part of the video and can also search through video using image or text.

**TIC-TAC-TOE BOT** | Python, Artificial Intelligence
Developed a bot capable of playing advanced version of Extreme Tic-Tac-Toe using alpha beta pruning, custom heuristics and zobrist hashing.

**LINUX MINI SHELL** | C, Operating Systems
Developed a Bash like terminal in C using Linux system calls which includes user-defined commands, piping and redirection and signal-handling.

## PUBLICATIONS

[1] **Yudhik Agrawal,** Samyak Jain, Emily Carlson, Petri Toiviainen, Vinoo Alluri: Towards Multimodal MIR: Predicting individual differences from music-induced movement, **ISMIR, 2020.**

[2] Abbhinav Venkat, Chaitanya Patel, **Yudhik Agrawal,** Avinash Sharma: HumanMeshNet: Polygonal Mesh Recovery of Humans, **ICCV Workshop 3DRW, 2019.**