**Yash Sinha** Houston/Dallas, TX • ysinha@smu.edu • www.linkedin.com/in/ysinha24

Diversely experienced Computer Science and Statistical Science student with over 3 yrs. of research experience in applied data science for full-stack software applications, seeking a research lab position that will align with interests to become a future Ph.D. student.

**Education**

Southern Methodist University, Dallas, Texas (Fall 2019 - Spring 2023)

**Major – Bachelor of Science in Computer Science   
 Bachelor of Science in Statistical Science**

**Minor – Mathematics**

# Skills

TECHNICAL Skills:

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| *Languages:* | **Python, R, C++**, Java, SQL(MySQL), JavaScript, HTML, MATLAB, SAS, SPSS, LaTeX |
| *Environments:* | **Git, Linux**, **Windows,** Anaconda, Docker, AWS, DevOps |
| *Frameworks:* | **Keras, TensorFlow,** Android Studio, ReactJS, NodeJS |

Courses:   
 Machine Learning, Data Mining, Statistical Computing, Time Series Analysis, Algorithms,

Data Structures, Software Architecture, Databases, Graphical User Interfaces

IT Certifications:

CompTIA Linux+, AWS Solutions Architect, Microsoft Office Professional

# Career History - Experience:

**Global Medical Consultancy Inc. TX –** *Software Developer**(Part-time)* (May 2019 - Present)

**Home Security System**: Implemented a real-time, machine learning facial recognition system on an IOT network, capable of detecting, alerting, and logging and viewing unauthorized entrants. The system uses ESP-32 microcontrollers to perform facial recognition and match against ‘Friends & Family’ database, it sends a real-time SMS text for any unauthorized people and analyzes who enters at each time and provides a weekly dashboard of occurrences on a local website.

**SMU AT&T Center for Virtualization –** *Research Assistant* (Dec 2020 – June 2022)

**Deep Learning Avionics Application on Stress (Python):** Deployed real time cognitive stress detection system for pilots during flight maneuvers. Created biometric pipeline sourcing from industry grade hardware sources. Designed and deployed a Docker container of the model to be streamed real-time from an E4 wristband’s biometric data to output the level of stress at different points during a maneuver.

**SMU Darwin Deason Institute of Cyber Security** – *Research Assistant* (June 2022 - Present)

**Applied Machine Learning in Mobile Application:** Designed full-stack operation of biometric two-factor authentication of mobile app users. Lead deployment of ML algorithms for streamline training of biometric data, cloud computing for storage and offline analysis, and Docker for distribution and testing.

# Publications:

**Real-Time Situation Awareness Assessment for Pilots via Machine Learning (MODSIM 2022):** The research presented here demonstrates the diagnostic value of real time and objective measure of Situational Awareness (SA) by employing a mix of biometric data streams gathered from wrist-worn and eye tracker devices. These biometric data streams are built on our existing performance data from previous works that assessed pilots’ SA performing a high-altitude intercept mission.