# HARSHA DATTA MANGALA

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#### **PROFESSIONAL PROFILE**

To advance my career with a leading organization that will utilize my extensive software engineering knowledge while also allowing me to develop further as a professional. Proven talent for aligning project objectives with established and emerging technology paradigms to achieve optimal design results with minimal obstacles.

#### **EDUCATION**

## MASTER OF SCIENCE (M.Sc.) IN CYBERSECURITY

University of Houston, Cullen College of Engineering, Houston, TX

GPA: 3.8

Coursework: Network Security, Project Management, Data Analytics, Critical Thinking, Risk Management, Secure Software Design

#### BACHELOR OF ENGINEERING (B.Eng.) IN COMPUTER SCIENCE

BMS Institute of Technology and Management, Bangalore, India

Coursework: Data Structures and Algorithms, Operating Systems, DBMS, Computer Networks, Cryptography, OOP Concepts

#### **WORK EXPERIENCE**

## MANHATTAN ASSOCIATES, BANGALORE, INDIA, SOFTWARE ENGINEER R&D

AUGUST 2021 TO JULY 2022

- Contributed extensively to the study, assessment, and optimization of order processing and shipment management while serving as a key member of the Outbound Team within the Warehouse Management System (WMOS).
- Scripted, deployed, and maintained the essential core codebase responsible for managing outbound processes, including order fulfillment, shipping label generation, and delivery coordination, ultimately improving reliability for clients.
- Designed, integrated, and continuously honed APIs within the WMOS base code to accommodate evolving business needs, streamline outbound operations, and enable seamless integration with external systems.
- Detected, analyzed, diagnosed, and resolved over **200+ software bugs** and significantly diminished regression breaks within the base code, ensuring uninterrupted order processing.
- Participated in the design, architecture definition, and technical specifications of new products or enhancements of existing products.
- Created, implemented, and executed extensive unit test plans, scripts, and test harnesses.

#### **PROJECTS**

## COLLABORATIVE WHITEBOARD - SocketIO, React, HTML Canvas, RoughJS [DEMO]

- Designed and deployed an innovative, collaborative whiteboard application using React, Socket.IO, and HTML canvas which enabled real-time drawing, allowing multiple users to interact simultaneously on a shared digital canvas.
- Monitored and maintained a perpetual whiteboard state across users and sessions, ensuring that changes made by one user were
  immediately reflected for all participants, thus enhancing collaboration. Use it here

#### BINANCE TRADING BOT - Python, Tkinter, Binance API, SQLite [DEMO]

- Developed a sophisticated cryptocurrency trading bot leveraging Python, tkinter GUI, and integrating Binance API which orchestrated seamless communication allowing real-time access to ask and bid prices through web sockets.
- Implemented both technical and breakout strategies within the trading bot, enhancing its capabilities for making informed trading decisions and successfully executed trades based on predefined strategies, optimizing profitability, and minimizing risk for users.
- Streamlined the user interface using tkinter, providing an intuitive platform for users to monitor and interact with the trading bot efficiently.

## BLOCKCHAIN TRANSACTION MANAGEMENT - Python, Flask, Bootstrap [DEMO]

- Ideated, designed, and delivered a Blockchain transaction system using Python to simulate the common functions of using a crypto wallet.
- Generated a GUI that supported actions, such as creating a wallet, send, receive, list all accounts, etc., through Bootstrap.
- Implemented cryptographic functions, such as RSA and SHA, to verify transaction signatures and validate them.

## **TECHNICAL EXPERTISE**

LANGUAGES: Java, C++, Python, JavaScript, SQL
DEVELOPER TOOLS: VS Code, Eclipse, GIT, Remix
DATABASES: MySQL, MongoDB, Oracle SQL
FRAMEWORKS: Spring MVC, CORBA, React

## **AWARDS AND HONORS**

- Attained the **top rank (#1)** among 800+ active registered users on Geeks for Geeks Practice platform at the University of Houston, showcasing proficiency and excellence in programming.
- Coding Profiles: LeetCode, GFG