Ghate Harshal Shrikant | Mobile No.: (+65) 93799896 | Email: harshalghate004@gmail.com

EDUCATION

Nanyang Technological University, Singapore Bachelor of Engineering in Computer Engineering

Aug 2023 - Jun 2027

• Relevant Modules: (1) Data Structure and Algorithms (2) Probability and Statistics for Computing (3) Digital Logic (4) Linear Algebra for Computing (5) Computer Organization & Architecture (6) Intro to DSAI (7)

Discrete Mathematics(8) Object Oriented Design & Programming (9) Sensors, Interfacing & Digital Control(10) Microprocessor System Design and Development(11) Software Engineering (12)

Global Indian International School, Punggol (GIIS, Singapore) Central Board of Secondary Education, India

Jul 2018 - Jul 2023

- Senior Secondary School Certificate
- Grade: 95.8%
- Recipient of Ambassador Dr. Abid Hussain GIIS Award for Academic Proficiency Overall (2021-22)

CAREER SUMMARY

Motivated student engineer aspiring to tackle intricate challenges. Honed exceptional communication and interpersonal skills through diverse team-based and independent experiences. Eager to contribute to innovative projects, particularly those at intersection of hardware and software or Al/ML technologies. Key interests include back-end programming, micro-processor coding, sensor handling.

RESEARCH AND PROJECT EXPERIENCE

NTU Module:Intro to Data Science and Artificial Intelligence

Jan 2024 - Apr 2024

- Module Project: Performance of various algorithms in solving the Sudoku Puzzle
- Designed, coded and implemented algorithms to optimise the metrics of solving a sudoku puzzle.
- Research project aims to find how DFS, UCS, A*, and Greedy can solve Sudoku as a directed and connected graph.

NTU Module:Intro to Data Science and Artificial Intelligence

Jan 2024 - Apr 2024

- Module Project: Heart-Attack Prediction Model (Team of 4)
- Analysed a dataset to predict heart-attack occurrences, encountering challenges with missing values and feature selection.
- Pre-processed data, performed EDA, and aimed to build a classification model for accurate heart-attack predictions.
- Applied scaling; trained classifiers Decision Tree, Linear Regression Model, Random Forest, and T-Test achieving 89.4% accuracy.

NTU-CE Module: Object Oriented Programming and Design

Aug 2024 - Dec 2024

- Module Project: Hospital Management System (Team of 5)
- Developed a **Hospital Management System (HMS)** using **Java**, employing **Object-Oriented Programming (OOP)** principles to manage appointments, patients, doctors, prescriptions, and medical records.
- Implemented **modular and maintainable code structure** by utilizing **Manager classes and interfaces** to separate logic and functionality, promoting scalability and ease of maintenance.
- Integrated **CSV file handling** to efficiently import and export data, facilitating seamless patient and medicine record management.
- Applied **software design patterns** to enhance code reusability and maintainability, while documenting the system using **JavaDoc** for comprehensive API references.

NTU-CE Module: Software Engineering

Jan 2025 - Present

Module Project: Fitness Tracking App (Flutter, Firebase, Cloud Firestore)

- Developed a cross-platform fitness tracking app with modular architecture and real-time analytics.
- Auth & Database: Firebase Authentication, Firestore (modular User Services for Get, Set, Update).
- Goal & Activity Tracking: Personalized goal selection, activity logging, real-time progress visualization.
- Tech Stack: Flutter (Dart), Firebase (Auth, Firestore), Provider (State Management).
- Key Design: Scalable, loosely coupled architecture with high cohesion and clean UI/UX.
- Complete documentation with dialogue map, sequence diagram, class diagram, boundary entity relationship diagram.

CO-CURRICULAR ACTIVITIES

NTU Hall 11 Cultural Exchange Program SUB-COM

Aug 2023 - Present

Volunteered, recruited, organize and facilitate volunteering trips all over Singapore

- Experienced, multiple visits to willing hearts-Singapore's leading soup kitchen charity organisation.
- Organized multiple clean-ups drives to Jurong Central Park and East-Coast Park.

NTU Hall XI FOP, Programmer NTU Hall XI DARTS, Team-Captain

Aug 2024 - Present

• Played as team captain for NTU inter hall darts competition.

NTU Hall XI SWIMMING, Team-Captain Captain

Sep 2023 - Aug 2024

Played as team captain for NTU inter hall swimming competition.

ACHIEVEMENTS

Top 4 for One World Robotics Competition, Singapore 2021

SKILLS

- Languages: Fluent in English, Hindi and Marath, and fluent written communication.
- Software Programming: C/C++, Python, SQL, Verilog, Java, Software Engineering, JavaScript, Node.js, Full Stack Firebase, SuperBase, react, FASTAPI, Azure
- Certificate Of PCEP Certified Entry-Level Python Programmer 2022
- Certificate Of PCAP Certified Associate in Python Programming 2022
- Certificate Of JSE Certified Entry-Level in JavaScript 2025