

UMANG GUPTA

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EDUCATION

Singapore University of Technology and Design

Singapore

Bachelor of Engineering in Computer Science and Design, Minor in Artificial Intelligence

Sept. 2020 – May 2024

GPA 4.46/5.0, SUTD Honors List

Available full time from Jan 2023 - Sept 2023

Relevant courses: Data Structures and Algorithms, Operating Systems, Concurrency, Database, Networks, Machine Learning, Artificial Intelligence

WORK EXPERIENCE

Researcher | *Solidarity, Blockchain*

Oct 2021 – Mar 2022

Singapore University of Technology and Design X Singapore Mentorship Committee

Singapore

- Researched on Network Design and Performance in Blockchain Networks and its impact on user and developer trust for decentralized applications
- Recognized as the best research team out of 5 rival teams for finding business opportunity with professors from SUTD and mentor from MIT

PROJECTS

Dygnostic | *Ruby on Rails, JavaScript, HTML, Python, GCP, Postgresql, React, Git*

May 2022 – Aug 2022

- Led a team of 6 to develop a web app to automate TSH Group's machine inspection to attain 30% time reduction
- Utilised Cloud Vision to automatically analyze quality of label on the machine components
- Recognized as the best architecture for implementing REST APIs and microservices
- Followed BDD and TDD, succeeded as the best tested software in 15 projects by conducting unit and e2e testing

Secure File Transfer | *Python, Cryptography, Git*

Jul 2022 – Aug 2022

- Implemented a secure file upload application from a client to a secure file server ensuring Confidentiality, Integrity, Authentication and Preventing Replay Attack
- Won best program award out of 250 students for fastest secure encrypted file transfer

Shell | *C, Git*

Jun 2022 – Jun 2022

- Created shell to find files, change directory, count lines, check daemon processes and show available commands
- Succeeded as the fastest coder to create shell in 12 hours among 250 students with no crashes from auto-testing

VoiceBus | *Swift, IOS, Machine Learning, Git*

Dec 2021 – May 2022

- Led a team of 4 to develop a full-stack iOS voice enabled bus information app for the visually impaired
- Applied machine learning to create text-to-speech and speech recognition engines for the app
- Succeeded as the only app to receive positive user feedback, and to publish the app on App store
- Winner of Swift Inclusive App Development Hackathon 2022

HawkerGO! | *Java, Android, Google Firebase, Git*

Feb 2022 – Apr 2022

- Led a team of 6 to develop a full stack Android application, to view and review hawker stalls and hawker centres in Singapore supporting local stores not available on Google Maps
- Ranked 4th among over 200 students for innovation and architecture of the app

FDM5K | *Alchitry, Lucid, FPGA, Git*

Feb 2022 – Apr 2022

- Led a team of 8 to develop a hardware game inspired by Bishi-Bashi arcade game
- Won 5th place among over 200 students for hardware quality, effectiveness of datapath, complexity of game

CO-CURRICULAR ACTIVITIES

Software and Electronics Engineer | *Altium, Soldering*

Feb 2021 – Jun 2022

SUTD Ringcomm Club

Singapore

- Created a smart watch software replacing student campus access card and payment bank card
- Designed a decryption NFC Reader that can read and decrypt MIFARE IDs to replace student campus card
- Experimenting on NFC architecture to ensure robust short-range NFC reception with small antennas

AWARDS & ACCOMPLISHMENTS

The Jyoti and Aditya Mathur Environmental Award

SUTD

Received for organising first sustainability themed design thinking hackathon of SUTD with 200 applicants

Mar 2022

The Design and AI in the Data Driven World Challenge

SUTD X DBS

Won 500 SGD in pitching an AI powered credit card recommendation engine in Paylah App

Sept 2021