

# 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  
**Relevant courses:** Data Structures and Algorithms, Operating Systems, Concurrency, Database, Networks, Machine Learning, Artificial Intelligence  
**Availability:** Part time (Sept 2023 - May 2024), Full time (May 2024 onwards)

## WORK EXPERIENCE

**Software Engineer Intern** | *Kotlin, Java, Git, RxJava, Dagger, Android Studio* Jan 2023 – May 2023  
*Grab* Singapore  

- Created custom TCP socket message logger which reduced android app debugging time by 30%
- Creating and handling the complete android development of incentivizing drivers to be active at specific periods speculated to increase efficiency by 30%

## PROJECTS

**Dygnostic** | *Ruby on Rails, JS, HTML, Python, GCP, Postgresql, React, Cucumber, Rspec* 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 under direct mentorship of Apple's Systems Engineer 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, Junit, 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 – Present  
*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