

# 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*

## 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
- Operated under professors from SUTD and mentor from MIT

## PROJECTS

### Dygnostic | *Ruby on Rails, JavaScript, HTML, React, GCP, Postgresql, Pytorch, Tensorflow*

May 2022 – Aug 2022

- Led a team and Developed a web app to automate quality inspection of machines made by TSH Group
- Utilised Cloud Vision to automatically analyze quality of label on the machine components
- Implemented REST APIs in Backend
- Followed BDD and TDD, succeeded as the most well tested software in 15 projects

### 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, Preventing Replay Attack
- Achieved to be the most secure file transfer program developed from scratch in a cohort of 250 students

### Shell | *C, Git*

Jun 2022 – Jun 2022

- Created shell which can find files, change directory, show available commands
- Succeeded as the fastest coder to create shell in 12 hours among 250 students

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

Dec 2021 – May 2022

- Led a team and Developed a full-stack iOS bus information application for the visually impaired
- Applied machine learning to recognize and process speech, convert text to speech
- 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 and Developed a full stack Android application
- Single, centralised resource for users to view and review hawker stalls and hawkers centres in Singapore
- Recognized as top 10 Apps developed among over 200 students

### FDM5K | *Alchitry, Lucid, FPGA, Git*

Feb 2022 – Apr 2022

- Developed a hardware game inspired by Bishi-Bashi arcade game
- Recognized as top 5 games developed among over 200 students

### Secure File Transfer | *Python, Git*

Nov 2020 – Nov 2020

- Developed a copy of Pacman game using Python within 15 hours
- Hailed as the best game developed in cohort of 550 students

### Who Wants to be a Millionaire | *C++, Git*

Sep 2019 – Oct 2019

- Developed an online version of “Who wants to be a millionaire” using C++
- Recognized as top 5 C++ projects among 150 students

## CO-CURRICULAR ACTIVITIES

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### Software and Electronics Engineer | *Altium*

Feb 2021 – Present

*Ringcomm*

*Singapore*

- Contributed to software of smart watch replacing student ID card and bank card for payments
- Designed a Decryption NFC Reader that can read and decrypt MIFARE IDs
- Experimenting on NFC architecture to ensure robust short-range NFC reception with small antennas

### Undergraduate Teaching Assistant

Jan. 2022 – Apr 2022

*Singapore University of Technology and Design*

*Singapore*

- Served as Teaching Assistant for Mathematics course Modelling Space and Systems
- Taught a cohort of 50 students, conducted over 130+ consult hours and succeeded as the cohort with the highest average score

## AWARDS & ACCOMPLISHMENTS

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### The Jyoti and Aditya Mathur Environmental Award

SUTD

*Organised first sustainability themed design thinking hackathon of SUTD*

*Mar 2022*

### IdeateSomething

SUTD Entrepreneurship

*Won 1000 SGD for developing a concept app to quickly plan fun meetup with friends*

*Dec 2021*

### 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*

### Best Prototype DRIVE Program by Design Odyssey

SUTD-MIT IDC

*Developed a semi-automated hydroponics pod along with online control system*

*Mar 2021*

## TECHNICAL SKILLS

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**Languages:** Ruby, HTML/CSS, React, JavaScript, Swift, Java, Alchitry, Python, R, C/C++, SQL

**Frameworks:** JUnit, Rails, Sinatra, Rspec, MongoDB

**Developer Tools:** Git, Xcode, Android Studio, Google Cloud Platform, PyCharm, RubyMine, VS Code, Jupyter Notebook, Arduino, Figma

**Libraries:** pandas, NumPy, Matplotlib