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 GPA 4.6/5.0, SUTD Honors List Sept. 2020 - May 2024

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 – Present

- Developing a web app to automate quality inspection of machines made by TSH Group
- Using Text Recognition, Image Recognition to automatically analyze quality of certain machine components
- Conducting BDD and TDD while crafting and implementing REST API

VoiceBus | Swift, IOS, Machine Learning, Git

Dec 2021 - May 2022

- 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

- 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

Pacman | 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 $\mid C++, Git$

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

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

The Jyoti and Aditya Mathur Environmental Award

Organised first sustainability themed design thinking hackathon of SUTD

 $Mar\ 2022$

SUTD

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

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