## Siddardha Reddy Sanagala

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## EDUCATION

### National University of Singapore

Singapore

Bachelor of Computing (Honours) in Computer Science

Aug. 2023 - Jun 2027

- Second Major in Mathematics
- Minor in Quantitative Finance
- Relevant courses: Data Structures and Algorithms, Programming Methodology 1 and 2, Software Engineering, Computer Organisation, Introduction to Computer Networks, Operating Systems, Information Security

#### TECHNICAL SKILLS

Languages: Java, Python, SQL (Postgres), JavaScript/TypeScript, HTML/CSS, C, C++ Frameworks: React/React Native, TensorFlow, OpenCV, Gatsby.js, Node.js, Flask, Jest

**Developer Tools**: Git, Docker, GitHub Actions, Postman **Platforms**: Expo, Azure, Stripe, Supabase, Firebase

Libraries: Beautiful Soup, Selenium, AIOHTTP, PySimpleGUI

#### Projects

SwipeStyle (NUS Orbital (Software Engineering Project)) | React Native, Python, Node.js, PostgreSQL, Tensorflow

- Developed a full-stack mobile shopping application using Expo, React Native and Node.js
- Successfully implemented Stripe payments in the app allowing users to make purchases
- Implemented a custom collaborative filtering machine learning model using TensorFlow Keras
- Built a Flask back-end for the model to query recommendations for new users as well as handle new user sign-ups
- Achieved a model accuracy of 0.733 and a training loss of 0.109 with a limited dataset of 500 interactions
- Containerised model and Node.js back-end using Docker and hosted it on Azure using GitHub Actions
- Attained the level of Apollo, awarded to the top 10% of all projects. https://shorturl.at/9tcsb

#### Mugger Simulator | OpenCV, PyTorch, Transformers, Tkinter

- Built a focus-monitoring application using OpenCV to track head and pupil movements, ensuring users stay attentive to their screens
- Utilized SmolVLM, a lightweight vision-language model, to analyze on-screen content and determine if the user is engaged in productive work
- Designed the tool in less than 24 hours to enhance productivity through real-time monitoring and feedback, encouraging focused work

## Work Experience

# Undergraduate Teaching Assistant (IS1108 Digital Ethics and Data Privacy) Aug 2024 – Present National University of Singapore Singapore

- 1 out of 29 Undergraduate Teaching Assistants for IS1108
- Prepared teaching materials and delivered weekly tutorial lessons to a class of 32
- Received a 4.6/5 teacher rating and positive reviews from students (Department average: 4.2/5)

## Co-Curricular Activities

## **NUSSU Deputy Director of Finance**

Aug 2024 – Present

National University of Singapore

Singapore

- Reviewed and approved purchase requests, balancing financial prudence with student organization needs
- Collaborated with multiple student bodies (e.g. commIT, BIZCOM, etc) to streamline financial processes
- Assisted in financial planning and reporting, contributing to budget reviews and expenditure tracking
- Ensured compliance with financial policies while facilitating funding for student initiatives and events

## Additional Information

Leadership Roles: President/Member of Student Council (2016-2018/2018-2020), Badminton Captain (2024 - Present)

Languages: English (Native), Telugu (Native), German (Fluent), Spanish/French/Hindi (Intermediate)

Work Authorization: Singapore Citizen

Current Availability: Summer 2025 (May 2025 - Aug 2025), Off-Cycle (Aug 2025 - Feb 2026)