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 completed: Data Structures and Algorithms, Programming Methodology 1 and 2, Software Engineering, Computer Organisation
- Relevant courses (currently enrolled): Introduction to Computer Networks, Operating Systems, Information Security

TECHNICAL SKILLS

Languages: Java, Python, SQL (Postgres), JavaScript/TypeScript, HTML/CSS
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) | *React Native, Python, Node.js, Flask, PostgreSQL, Tensorflow*
- Developed a full-stack mobile shopping application using Expo and React Native for the front-end and Node.js for the back-end
- 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
- Wrote unit tests in Jest to ensure the proper rendering of the mobile application
- Attained the level of Artemis (expected), awarded to the top 5% of all projects. Viewable here

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

Chess Review | *Python, PySimpleGUI*
- Developed a Python script to analyse a user's latest Chess.com games, helping them learn from their mistakes
- Produced a video and a code walk-through using Adobe Premier Pro viewable here

EXPERIENCE

Undergraduate Teaching Assistant (IS1108 Digital Ethics and Privacy)   Aug 2024 – Present
National University of Singapore   *Singapore*
- 1 out of 29 Undergraduate Teaching Assistants for IS1108 Digital Ethics and Privacy
- Prepared teaching materials and delivered weekly tutorial lessons to a class of 25
- Received a 4.6/5 teacher rating and positive reviews from students (Department average: 4.2/5)

ADDITONAL INFORMATION

Leadership Roles: NUSSU Deputy Director of Finance, President/Member of Student Council (2014-2018/2018-2020), Badminton Captain (2024 - Present)
Languages: German (C1), Spanish (B1), French (B1), Hindi, Telugu (Native), English (Native)
Work Authorization: Singapore Citizen; eligible for A-1B1, J-1 US visas, and HP1 UK visa, with no petition needed
Current Availability: Summer 2025 (May 2025 - Aug 2025), Off-Cycle (Aug 2025 - Feb 2026)