GOPAL ROY

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ABOUT ME

I am passionate about speed cubing and coding. I enjoy solving math questions and puzzles. In school my CCA is Infocom and Innovation Club and I have represented my school in several competitions. I participated in 2 WCA (World Cubing Association) competitions, made friends and had the opportunity to meet and learn from several awesome word record holder cubers in the speed cubing community. In my free time I enjoy reading books, coding computer games and figuring out how to solve puzzles of different shapes.

PROJECTS

I have worked on the following projects either in school, as part of competitions or as side-projects:

- **Pet-Buddy**: A prototype of a hamster (using micro:bit inside) to help students learn how they can better support themselves emotionally and socially. The pet-buddy will pick up signs of distress and provide support and guidance to the students. [Won 2nd prize at Pei Hwa Hackathon 2022]
- **Food Buddy**: A prototype (using micro:bit, HX711, IOT:bit, MIT App Inventor, Telegram) which implements a solution for preventing food wastage in school from food ordering to waste disposal. [Won commendation prize at Pei Hwa Hackathon 2023]
- **Solar Adventure**: A multi-level maze game where the player moves his personalized avatar around the maze by collecting EV's and earning green points [Finalist in NPGCC 2023]
- **Math Dash**: A customized geometry dash game where every time a player collides with an obstacle, they have to solve a math question to try again. The game can be played at 3 levels with the complexity of obstacles and difficulty of math problems increasing. [Vista Mathematician Challenge]
- **Games in Javascript:** Ping Pong
- **Games in Scratch:** Rock-Paper-Scissors, Text Translator (100 languages), Paint all, Brick Breaker, Maze Game, Lemon Invasion (Shooting lemon invaders),
- **Games in Python:** Connect 4 GUI*, Tic-tac-toe GUI*, Calculator GUI*
- **About Me** – This is an about me app that I created using Swift in Swift Playgrounds
  *GUI stands for Graphical User Interface

SKILLS

- Minecraft (Hour of Code 2021,2022, 2023 certification)
- Block Coding: Scratch, MakeCode Arcade
- Web Development: HTML, CSS
- Programming Languages: Python, Javascript
- App Development: Thunkable, MIT App Inventor, Swift Playground
- Microcontroller: micro:bit

SELECTED HONORS / AWARDS

P6:

- **Math:** SASMO (GOLD), SMOPS (SILVER)
- **Coding: N**ational **T**hinkers **C**hallenge – Selected for finals among Top 15 (group leader) – Finals in Nov 2024

P5:

- **Math:** NMOS (GOLD), SASMO (GOLD), AMO (GOLD), IJHS (Awarded Junior Membership),
- **Coding:** DrCT (GOLD), Pei Hwa Hackathon (Commendation Award among top 30 teams in Singapore), NPGC3 (Finalist, selected amongst top 30 teams in Singapore), IDE Code Builder
- **Scholarships:** Edusave Scholarship

P4:

- **Math:** SASMO (Silver), SIMOC (Bronze), Vista Mathematician Challenge Award
- **Coding:** Pei Hwa Hackathon (2nd place among top 30 Teams in Singapore),
- **Scholarships:** Edusave Scholarship, CCC-CDC Education Merit Award

P3:

- **Math:** Vista Mathematician Challenge Award
- **Scholarships:** Edusave Scholarship, CCC-CDC Education Merit Award

P2:

- **Coding:** Drone Odessey Challenge organized by Singapore Science Center (Distinction Award)