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Community and Research Awards

◇ NeurIPS Winner (1/355) **2024**
◇ President's Volunteer Service Award, Gold Medal **2024**
◇ Melvin Jones International Humanitarian Services Award **2024**
◇ Next Generation Foresight Practitioner Youth Voices UN SDG #6 Award **2023**

Academic Excellence Awards

◇ AP Scholar with Distinction **2024**
◇ Excellence in AP English Lang **2024**
◇ Rotary Computer Science Award **2023**
◇ Excellence in Spanish **2023**
◇ Control and Innovate Award, NorCal Robotics **2023, 2024**

Leadership

◇ Youth President, Water Programs, Maji Wells **2021-present**
◇ Class Officer, Spirit Chair, Sacred Heart Preparatory **2023-present**
◇ Co-founder, Improv Club, Sacred Heart Preparatory **2022-present**
◇ Hardware Lead, Robotics Club, Sacred Heart Preparatory **2022-present**

Recognized & Featured

◇ Changing Lives [Sprint 24], Sacred Heart Magazine **2024**
◇ Presenter, MDCON24, Multi-District East Africa Conference **2023**

Socials

🌐 roshan.codes
💻 github.com/roshantaneja
🔗 linkedin.com/roshan-taneja
✉ roshantaneja.stck.me

Education

High School Diploma @ *Sacred Heart Preparatory*. **2022–2025**
◇ GPA: 3.94; ACT: 36 (Math: 36, Science: 36, Reading: 36, English: 34)
◇ AP: Calc BC, Phys 1, CS A, Macro, Micro, Phys C, Eng Lang, Eng Lit, Spanish
◇ Post-AP: Advanced Math, Advanced Computer Science, Machine Learning, Senior Honors Independent Study

Intermediate Data Science @ *UCLA CSSI* **Summer 2024**
Introduction to Climate Science @ *UC Berkley* **Summer 2024**
Remote Sensing @ *MIT Beaverworks* **Spring 2024**
Data Structures and Algorithms @ *John Hopkins CTY* **Summer 2023**
Global Mathematics @ *Duke University Summer* **Summer 2022**

Projects, Volunteering, & Work Experience

Youth President, Water Programs @ *Maji Wells* **2021–present**
◇ Reduced need for women to walk for water from 9 hrs per day to 3 hrs/day by fundraising over $100K and deploying 100 rainwater harvesting units over four years; Helps 4500+ Maasai in Monduli, TZ. Led a team of 10 students to conduct on-ground research published
◇ Developed a machine learning-based satellite image classification model to identify living locations for 30,000 Maasai to plan the placement of the next 100 water harvesting units.

Class Officer @ *Sacred Heart Preparatory* **2023–2025**
◇ As 1 of 6 officers, Junior Senior yr, planned and executed 25 events; Introduced three new events across 500+ students that became recurring traditions

Sales and Mechanic @ *Calabas Cyclery* **Summer 2022–Present**
◇ Sold bicycles worth $15K, managed floor inventory, fixed bikes, and managed check-out counter; Upgraded website and social media accounts with more high-resolution pictures, online catalog, video posting

Engineering Intern @ *Fluxon Apps* **Summer 2023**
◇ Built typescript tool to automate previously manual billing for employees. Saved 2000 annual man-hrs; first intern for the company

Research Intern @ *Harvard GIS Lab/Spatial Sciences USC* **Fall 2024**
◇ Working with Prof. Wang to expand use cases for placement of waterharvesting units using satellite imagery machine learning for Maasai in Tanzania.

Publications, Patents & Academic Conferences

Patent Pending, Publication: Object Detection in Satellite Imagery for Optimizing the Placement of Rainwater Units **2024**
◇ Patent Pending, Winner NeurIPS (4 out of 355 enteries), In peer review NHSJS

Presenter: Machine Learning 4 Earth Observation Conference @ *The University of Exeter, UK* **2024**

Presenter: NeurIPS 2024: 1 of 4 Winners from 355 global enteries @ *Vancouver, Canada* **2024**

Publication: Assessing the Impact of Rainwater Harvesting on 4500+ Maasai **2024**
◇ Published in NHSJS

Short Story: "Pomegranates" **2024**
◇ Published in The Ravens Perch, PALM, Beyond Words Magazine, Part of current Junior Year Curriculum at SHP

Presenter: MDCON23, Multi-District East Africa Conference @ *Lions International, Tanzania* **2023**
◇ Audience of over 600 international members from across East Africa