
Swayam Chaulagain

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EDUCATION

Trinity International College, Nepal - *GCE A Levels*

2020 -2022

St. Joseph's School, Gorkha, Nepal - *SEE*

2010 -2020

EXPERIENCE

Mathematics Initiatives in Nepal, Kathmandu, Nepal - *Instructor and Content Writer*

December 2020– Present

- Working as a number theory instructor in different camps
- Preparing different blogs and conducting online sessions regarding topics in mathematics

Program in Mathematics for Young Scientists (PROMYS), Boston, MA - *Participant from Nepal*

July 2022–August 2022

- Completed rigorous Number Theory course under the guidance of Prof. Glenn Stevens and Henry Cohn
- Conducted research with Prof. David Fried on "Pisano Periods"

New York Academy of Sciences, New York, NY - *Junior Member (Remote)*

July 2020–June 2022

- Collaborated with young geniuses from all around the world to propose research solutions for different challenges like improving telemedicine, tackling eutrophication, and effective vaccine distribution

NORHED Rupantaran Project - *Funded by Norwegian Government* - *Trainer and Research Assistant*

November 2021–January 2022

- Introduced robotics to a syllabus of a community school in Dapcha
- Created AI-based plant disease detection system to assist Prof. Sanjay in his agro-based research

Sci-Tech Guild - Trinity International College - *Project Designer and Coder*

August 2020– May 2022

- Worked on different projects and represented college in different exhibitions
- Conducted national level sci-tech expo in the college

St. Joseph's School, Gorkha, Nepal - *Student Editorial Head*

April 2019– April 2020

- Led school's Editorial board and successfully published school magazine **Josephites** on school's silver jubilee

STEM Foundation Nepal - *STEM Student Ambassador*

January 2021– Present

- Working to aware high school students about STEM opportunities available for high school students of Nepal

Nepal Scout - *Member*

April 2018– April 2020

- Volunteered in different district-level events
- Represented Gorkha in National Scout Jamboree

Livingston Research - *Freelancer*

January 2022– September 2022

- Worked as a freelancer during my weekends doing different tasks of mathematics and statistics

AWARDS

Mehta Fellowship Award 2022 – Full Sponsorship to PROMYS

Selected for United States Education Fund Nepal's Opportunity Funds program 2023

American Mathematics Olympiad 2022 by SIMCC - Silver Medal

Finalist for International Mathematics Olympiad from Nepal

All Nepal District Mathematics Olympiad 2022- Second Position

Selected for Euler Circle Summer Class 2023

Selected for Horizon Academic Research Program Summer 2023

Academic Excellence Award (Full Scholarship) 2020-2022, Trinity International College

National level Trinity Sci-Tech Expo 2022 – Second Prize Winner

International Youth Math Challenge 2020 – Bronze Honor

Gorkha District Inter-school Quiz Competition 2020 - Second Prize Winner

Inter-School Science Exhibition Little Flower School, Chitwan 2019 - Winner

TECHNICAL STRENGTHS

Programming Languages - Javascript, Python

Tools - Arduino, Raspberry-Pi, Latex

TRAININGS

Introduction to Quantum Computing Course 2022

- Successfully completed quantum computing course by the coding school with the support of IBM (6 months)

MA001: College Algebra, Saylor Academy

- Successfully completed a college algebra course from Saylor Academy

Canopy Nepal, Beyond Borders

- Successfully participated in a leadership program from Canopy Nepal

Intel Institute Bridge Course 2020

- Successfully completed a 3 months bridge course in advance science

PROJECTS DONE

Heart Disease Detection Machine

- A **machine learning project** involving the **analysis of signals from the heart** using **R-Pi, Esp-32 and Arduino** and predicting potential abnormality in heart

Plant disease detection Machine

- A **machine learning project** involving the **analysis of leaves and parts of a plant** using **R-Pi, Pi-cam, and Arduino** and predicting potential disease in specific plants

Floor Cleaning Machine

- A robot that cleans the floor, created using Arduino and dc motors

Laser Security Machine

- A house security system made using photosensors and alarms

Automatic Candy Vending Machine

- A project based on the simple machine that vends specific candy on specific coin

INTERESTS

- Mathematics
- Physics
- Electronics

SKILLS

- Critical thinking and problem-solving
- Volunteering
- Debating
- Leadership
- Editorial Skills