Swayam Chaulagain

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Education

- **University of Southern Mississippi (USM)** — Hattiesburg, MS
  Bachelor of Science- Mathematics, Computer Science — *Aug 2024 - May 2028*

Skills Summary

- **Programming**: Python, Data Structures and Algorithms, Github, Latex
- **Data Science**: Numpy, Pandas, Matplotlib, MySQL, Excel
- **Platforms**: Windows, Arduino, Raspberry, IBM Qiskit

Experience

- **USM Foundation Office** — Hattiesburg, MS
  Student Assistant — *September 2024 - Present*
  - Clean and process scholarship data in Blackbaud, collaborating with the analytics team
  - Manage and organize scholarship datasheets to keep donor contributions and student awards accurate
- **NASA L'Space Program** — Remote
  Proposal Writing and Evaluation Experience Academy — *September 2024 - Present*
  - Gain hands-on experience in proposal writing for NASA missions, collaborating with professionals from Marshall Space Flight Center
- **World Science Festival** — New York, Remote
  Scholar — *August 2023 - May 2024*
  - Worked with scientists and global peers on projects applying mathematics to fields, including particle physics, computational thinking, neuroscience
  - One of the 34 Science Scholars invited from all around the world to WSF '24 with all expenses covered
- **Bloom Nepal School** — Lalitpur, Nepal
  High School Teacher — *January 2023 - May 2024*
  - Taught Mathematics and Science to students in grades 7-10, preparing them for district-level Math Olympiads
  - Supervised students' participation in Extra-Curricular Activities
- **Incubate Nepal** — Kathmandu, Nepal
  Student Researcher — *August 2023 - September 2023*
  - Researched and coauthored a paper on solving scheduling issues in 8 hospitals using "Grover's Algorithm" under mentorship of CERN physicist Dr. Mukesh Ghimire
- **Program in Mathematics for Young Scientists** — Bangalore, India
  Returning Student — *May 2023 - June 2023*
  - Coauthored a research paper on the Artin-Hasse Exponential Function with global teammates and completed advanced coursework in Number Theory and Projective Geometry
  - Assisted first-year students in learning Number Theory through my PROMYS Boston '22 experience

Honors and Awards

- USM Academic Excellence and Centennial Scholarship ' 24/25
- Spirit of Ramanujan Award '23
- Honorable Mention - International Mathematical Modeling Challenge '23
- Mehta Fellowship '22,23 - PROMYS Boston, PROMYS India
- Finalist - Nepal National Mathematics Olympiad '22,23
- Selected for USEF Nepal's Opportunity Funds program '23

Projects

- **Heart Disease Detection Machine**: A machine learning project involving the analysis of signals from the heart using Raspberry-Pi, ESP-32, and Arduino to predict potential abnormality in heart (April '22)
- **Plant Disease Detection Robot**: A rover to analyze leaves and parts of a plant using Raspberry-Pi, Pi-cam, and Arduino and predict potential disease in specific plants (August '21)

Volunteer Experience

- **Mathematics Initiatives in Nepal** — *December 2020 - May 2024*

  Led online/offline math training, teaching number theory and olympiad geometry to 1000+ students through different sessions.