

Harshul Gupta

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EDUCATION

SKIT, JAIPUR

B.TECH IN COMPUTER SCIENCE

August 2017 - Present

BLUE HEAVENS, JAIPUR

CLASS 12TH

April 2017

ST. ANSELM'S SR. SEC. SCHOOL

CLASS 10TH

April 2015

SKILLS

PROGRAMMING/TOOLS

• C • C++ • Python • HTML5 • CSS
• Machine Learning • Bootstrap
• JavaScript • Wordpress • AWS • Google Cloud

ADDITIONAL SKILLS

• Redhat • Kali Linux • Docker • Geant4
• Root • Adobe Photoshop

LINKS

Github: github.com/harshulgupta

LinkedIn: [linkedin.com/in/harshulgupta](https://www.linkedin.com/in/harshulgupta)

Medium: medium.com/@harshulgupta

INTERESTS

• Flautist-Indian Classical Music
• Bonsai • Gardening • Astronomy
• Astrophotography • Reading
• Aquaponics • Blogger • Fish Keeping

PERSONAL TRAITS

Strengths:

• Determined • Autonomous • Eloquent
• Inquisitive • Neurotic • Insightful
• Versatility • Orchestral

Weaknesses:

• Takes on too much • Impulsive • Works too much
• Self critic • Stubborn

EXPERIENCE

TERRACIS TECHNOLOGIES | INTERNSHIP

April 2020 - June 2020 | Jaipur, India

- It was based on Web Development and Cloud Computing and I also gained some experience using Docker.

ADHOC NETWORKS | SUMMER TRAINING

June 2019 - July 2019 | Jaipur, India

- Training consisted of getting familiar with concepts of Cloud Computing (AWS, GCP), Linux based systems (Redhat, Ubuntu) and Machine Learning.

PROJECTS

EXOPLANET DETECTION | DATA VISUALIZATION

October 2020 | NASA's Kepler Data Analysis

AstroML, Seaborn and ExoData python libraries were used to analyze data from NASA Exoplanet Archive. The data gathered was of Kepler and TESS Telescopes.

WEB DEVELOPMENT PROJECTS

Freelancing | Complete Websites or Solutions

My Projects/Clients: Pt. Hariprasad Chaurasia, Astrophysicist Carl Sagan, Dr. Hakeem Oluseyi, Manuraj Singh Rajput, College Fest Website, Pt. Vivek Sonar.

ONGOING PROJECTS

RADIATION MODEL FOR SPACE | PARTICLE PHYSICS SIMULATIONS

September 2020 | DRDO and MNIT

We use 'Geant4' Software which is a toolkit for the simulation of the passage of particles through matter. Its areas of application include high energy, nuclear and accelerator physics

LARGE SYNOPTIC SURVEY TELESCOPE | DATA DRIVEN ASTRONOMY

October 2020 | Astronomical Observatory in Chile

Under the guidance of Cosmologist Hakeem Oluseyi I am working to analyze and map Milky Way stars in diverse galactic environment by using Data Visualization tool 'Filtergraph' which uses Friedman's Supersmoother 2D Period recovery model.

ACHIEVEMENTS

- Participated in NASA Space Apps Challenge Hackathon.
- Participated in NASA's Sagan Workshop for two years (Extreme Precision Radial Velocity (2020) | Astrobiology (2019)).
- Marked images for NASA's Osiris-Rex sample returning mission from asteroid Benu.
- President of college's SPIC MACAY Heritage Club.
- President of College's Astronomy Club.
- Selected in Smart India Hackathon 2020 College Level.

Note* Certificates list can be found at www.harshulgupta.in/certificates

NASA CITIZEN SCIENCE COMMUNITIES

• **PLANET HUNTERS TESS** | YALE UNIVERSITY

<http://exoplanets.astro.yale.edu/science/citizenscience.php>

Under the project leader Nora Eisner from University of Oxford I am volunteering in 'Planet Hunter TESS' Community. The goal of the project is to review the data from Space Telescope Science Institute's MAST and look for possibility of exoplanets. This project comes under NASA Citizen Science Program.

• **BACKYARD WORLDS: PLANET 9** | HARVARD UNIVERSITY

<https://ui.adsabs.harvard.edu/abs/2018AAS...23115814F/abstract>

Marc Kuchner (NASA Goddard Space Flight Center) and the Harvard team launched a new citizen science project entitled Backyard Worlds: Planet 9 to scan the cosmos for fast moving stars, brown dwarfs, and even planets. Here I volunteer with the community to distinguish real celestial objects from image artifacts in data from NASA's Wide-field Infrared Survey Explorer (WISE) mission.

• **CATALINA OUTER SOLAR SYSTEM SURVEY** | UNIVERSITY OF ARIZONA

<https://catalina.lpl.arizona.edu/news/2020/08/discover-distant-icy-worlds-catalina-sky-survey>

I have been working in a community under senior research specialist Carson Fuls. Catalina Outer Solar System Survey has been collecting images of the night sky for motion of distant Trans Newtonian Objects and I am volunteering to review the image data. This project comes under NASA Citizen Science Program.

• **GALAXY ZOO** | COLLABORATION

<https://zoo4.galaxyzoo.org/>

Under the leadership of Prof. Chris Lintott (University of Oxford) the volunteers of community classify galaxies on the basis of nature, shapes and sizes. We also identify if there is a phenomena of 'Gravitational Lensing'.

Note* These are projects on 'Zooniverse' Platform where different individuals with similar interests from NASA Citizen Science communities volunteer. Profile URL: <https://www.zooniverse.org/users/harshulgupta>

SOCIAL SERVICES

• **SPIC MACAY HERITAGE CLUB** | VOLUNTEER

SPIC MACAY (Society for the Promotion of Indian Classical Music And Culture Amongst Youth) is a voluntary youth movement which promotes intangible aspects of Indian cultural heritage by promoting Indian Music. I being a classical musician myself believe in spreading the aroma of our culture by volunteering in organizing concets for renowned musicians and other artists of India.

• **SUHASINI NGO FOR GIRLS** | SCIENCE COMMUNICATOR

I believe kids resonate to pure science. So as a science communicator I have been teaching astronomy to underprivileged young minds so that our nation can make further advancements in space race.