Curriculum Vitae

Personal Information

Full name: AAYUSH GAUTAM
Current address: Bharatpur-9, Chitwan, Nepal
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Language proficiency: Nepali (Fluent), English (Fluent)
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Education and qualifications

- 2013. School Leaving Certificate (SLC). GON SLC Board. Distinction. 90.00%
- 2015. Intermediate Level Certificate. HSEB Board. Distinction. 82.7%
- 2017-Present. Bachelor in science, Birendra Multiple Campus, Tribhuvan University, Fourth year running, Expected 2020 August. Physics, Statistics and Mathematics combination. Physics major.
- College: Birendra Multiple Campus, Bharatpur, Chitwan.

Skills and Interests

- Programming Languages: C (Good knowledge), Python (Good knowledge), R (Good).
- Familiarity with Git and Latex. Good keyboard skills.
- Working knowledge of Linux commands through usage on Windows subsystem for Linux (WSL) platform.
- Interested in applications of computational methods in Physics. Not intimidated by coding. Fascinated by higher mathematics and statistical methods with applications to Physics. Interested in applications of python codebase to physical scenarios, both for research and for physics communication through visualizations.

Other Interests

Science Outreach, Environmental Issues, Literature. Ethics in Science and Technology.

Academic Experience

- Physics Olympiad selection round participation. NAST. February 2015.
- Blogging Workshop. YTS Chitwan. June 2018.
- Model Provincial Assembly Workshop. US Youth Council. April 2019.
- Workshop on Space Weather and Upper Atmospheric Physics. ICTP. September 23-28,2019.
- Workshop on Quantum Computing. Central department of Physics, Tribhuvan University. December 2019.
- Workshop on Quantum-Espresso and Data Visualizations. Central Dept of Physics, Tribhuvan University (TU), Dept. of Physics & Supercomputer Center, Kathmandu

University (KU), and Condensed Matter Physics Research Center (CMPRC–Butwal). May 1-2, 2020.
- National Level Virtual Workshop on Advanced Materials Characterization Tools. SRM Research Institute, SRM Institute of Science and Technology, Chennai, India. May 20-21, 2020.
- Harley Wood School of Astronomy. International Centre for Radio Astronomy Research (ICRAR). Online. July 6, 2020.
- 2020 Sagan Exoplanet Summer Virtual Workshop on "Extreme Precision Radial Velocity". NASA Exoplanet Science Institute and California Institute of Technology, Pasadena, CA. July 20-24, 2020.
- International Astronomy and Astrophysics Competition (IAAC). Edition 2020. Finalist. July 27, 2020.
- The Physics of Life Summer School. Center for the Physics of Biological Function. The Graduate Center at CUNY and Princeton University. June 15 – August 3, 2020.
- Online School on Space and Atmospheric Physics. Department of Physics, St. Xavier's College, Kathmandu, Nepal in collaboration with Universidad do Vale do Paraíba, Brazil. August 5-7, 2020.
- MEEvirtual2020 Conference. Microbial Ecology and Evolution with relations to Mathematics and Physics. August 12-14, 2020.
- SciComm 2020. A Conference on Effective Science Communication. Hosted by University of Nebraska-Lincoln (UNL) College of Arts and Sciences. Online. August 14-16, 2020.
- Neutrons and Complementary Techniques for Quantum Materials Virtual Workshop. Quantum Materials Initiative (QMI), Neutron Scattering Division at Oak Ridge National Laboratory. August 18-21, 2020.
- GROWTH Astronomy School 2020. Global Relay of Observatories Watching Transients Happen (GROWTH) Collaboration. August 17-21, 2020.

Conferences Attended

- ANPA Conference 2020. Association of Nepalese Physicists in America (ANPA). July 17-19, 2020.

Professional Development

- Basics of Special Theory of Relativity. Lecturer: Prof. H.C. Verma. Centre for Continuing Education, Indian Institute of Technology Kanpur. December 2018 – March 2019.
- Basics of Quantum Mechanics. Lecturer: Prof. H.C. Verma. Centre for Continuing Education, Indian Institute of Technology Kanpur. August 2019 – November 2019.
- Advanced Course on Special Theory of Relativity. Lecturer: Prof. H.C. Verma. Centre for Continuing Education, Indian Institute of Technology Kanpur. January 2020 – May 2020.

- Solid State Physics in Quarantine. Lecturer: Sandro Scandolo. ICTP. April 2020 – May 2020.
- General Relativity and Einsteinpy. Naxxatra Sciences and Collaborative Research, Bangalore, Karnataka, India. March 2020 – Present.
- Advanced Astrophysics and Data driven Astronomy. Naxxatra Sciences and Collaborative Research, Bangalore, Karnataka, India. March 2020 – Present.

Projects and Achievements

- N-body simulations of exoplanets in binary systems using rebound python package for orbital mechanics. (BSc project work: Currently)
- Abstract titled "Orbital dynamics of hypothetical exomoons around a Jupiter-type exoplanet, Laligurans" accepted and presented at ANPA 2020 Conference. Abstract number: ANPA2020_0009. Refer: https://conference.anpaglobal.org/2020/06/2020-7-18abstracts.html .
- Research poster on orbital stability of exomoons selected for Virtual Poster Session of 2020 Sagan Exoplanet Summer Virtual Workshop on Extreme Precision Radial Velocity hosted by NASA Exoplanet Science Institute and Caltech. Refer: https://nexsci.caltech.edu/workshop/2020/posters/Gautam_Aayush.pdf
- International Astronomy and Astrophysics Competition (IAAC) 2020 Finalist.
- IAAC National Award for Nepal for securing highest nationwide score in the IAAC. Refer: https://iaac.space/en/announcement2020
- Open source contributions to Einsteinpy library for implementing General relativity in python. Refer Einsteinpy paper: https://arxiv.org/abs/2005.11288 . Accepted May 21,2020. Community Python project. Astropy Affiliated Package.
- GitHub profile: https://github.com/gravitas21

I do hereby declare that above particulars of information and facts stated are true, correct and complete to the best of my knowledge and belief. I can supply the above documents if needed.