NAVIN BHATTARAI

EDUCATION

Truman State University, Kirksville, MO

CGPA: 4.0 / 4.0

Majors: Bachelor of Arts in **Physics** - Dual Degree in **Engineering** Program

Expected May 2026

Relevant Coursework: Ordinary Differential Equation, Multi-Variable Calculus, Modern Physics, Vibrations and Waves, Foundation of Computer Science (Intro to C++), General Chemistry, Astronomy: Intro to Solar System, Statistics, Logic

Honors/Awards: International President's Honorary Scholarship, Gerald and Norma McReynolds Scholarship, Dr. Robert and Harlene Bailey Scholarship, Peter & Mary Summers Heinze Scholarship, Mrs. Robert (Fran) McKinney Scholarship, Dr. Robert Peavler Memorial Scholarship, Dr. Eugene W. Smith Memorial Scholarship, Larry & Sharron Quisenberry Science Endowed Scholarship

SKILLS

Programming: C++, Python, HTML, CSS

Software Tools: VS Code, Excel, LaTeX, AutoCAD

 ${\bf Language~Skills:~Nepali,~Hindi,~Urdu}$

WORK EXPERIENCE

Center of Academic Excellence — Academic Peer Tutor

Aug 2023 - Present

Truman State University, Kirksville, MO

- Provided one-on-one and group support for 30+ students, helping them master complex topics like limits, differentiation, integration, complex numbers, 3D vectors, kinematics, thermodynamics, electricity & magnetism etc.
- Completed 7+ leadership & peer tutor training focused on active listening, and design personalized learning.
- Conducted office hours (3-5 hours), provided extra support outside classroom & submitted reports summarizing the turnouts and conceptual questions.

Student Union and Involvement Services —Building Operations Manager

Aug 2022 - Present

Truman State University, Kirksville, MO

- Facilitated events & activities by coordinating with 30+ clubs and organizations, resolving issues in real time to ensure smooth execution
- Coordinate and led a team of 6+ assistants to compliant facility by ensuring adherence to regulatory standards and codes.
- Optimized event flow by anticipating challenges and making quick decisions, contributing to the success of campus events.

RESEARCH EXPERIENCE

Dye-Sensitized Solar Cells using Natural Dyes (DSSCs) —Research Assistant

Feb 2024 - Present

Truman State University, Kirksville, MO

- Assisted in designing experiments for extracting natural dyes from plant sources, characterized their properties using UV-visible spectroscopy, Fourier Transform Infrared Spectroscopy (FTIR).
- Fabricated laboratory-level DSSCs, analyzed data utilizing Electrochemical Impedance Spectroscopy (EIS) and I-V graph from solar simulator to optimize performance and material characteristics.
- Analyzed experimental data, interpreted results, and drawn conclusions regarding the feasibility and effectiveness of plant-based natural dyes as alternatives to toxic metal complex sensitizers in DSSCs.

CERTIFICATIONS

AutoCAD – Completed a comprehensive course on AutoCAD, gaining proficiency in 2D drafting, technical designs, layer management and various advance tools.

LEADERSHIP & PROFESSIONAL DEVELOPMENT

Society of Physics Student — Student Representative

Aug 2024 - Present

Truman State University, Kirksville, MO

- Represented the interests if fellow physics students in faculty meetings, ensuring their concerns and ideas were addressed.
- Facilitated communication between students, faculty, and the organisation, enhancing collaborative efforts for physics-related events.

Namaste Nepal, Nepalese Student Association — Treasurer

Aug 2023 - Present

Truman State University, Kirksville, MO

- Handled the logistics of financial operations ensuring successful completion of large-scale cultural events (Dashain, Tihar, Holi, Nepali New Year) attracting 200+ participants
- Worked closing with Funds Allotment Council, Center of International Student & Center of Diversity to oversee resource allocation, ensuring compliance with financial regulations and efficient use of funds.

Science Olympiad — Supervisor, Optics and Wi-Fi Lab

Mar 2023, Mar 2024

Truman State University, Kirksville, MO

- Inspected 24+ experimental tests and administered theoretical written exams.
- Evaluated 12+ group tests and ensured the publication of accurate and unbiased results.

Baptist Student Union — Student Volunteer

Mar 2023

Truman State University, Kirksville, MO

- Organized and delivered essential supplies like food, clothes and hygiene supplies to underprivileged community of 1.5K+ people.
- Collaborated with People Loving Nashville and The Bridge, Inc. to develop and implement service projects aimed at maximizing our outreach and impact on the wide-community.