

NAVIN BHATTARAI

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EDUCATION

Truman State University, Kirksville, MO

CGPA: 4.0 / 4.0

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

Expected May 2026

Relevant Coursework: Modern Physics (I & II), Vibrations and Waves, Ordinary Differential Equation, Multi-Variable Calculus, 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, Logger Pro, Solar Cell Simulator/I-V Analyzer, PalmSens4/EmStat4

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
- 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 Electro-Chemical 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

Complete **AutoCAD** course: Advanced Level, **Python** Basic Course, Intermediate Peer **Tutoring** Training, **Investing** in Stocks: Fundamentals

LEADERSHIP & PROFESSIONAL DEVELOPMENT

Society of Physics Student — *Student Representative*

Aug 2024 – Present

Truman State University, Kirksville, MO

- Represented the interests of 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