

JANAK PAUDEL

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ENGINEERING EXPERIENCE

Illinois Department of Transportation, District 3, Ottawa, IL

Engineering Intern

June 2024 - August 2024

- Inspected over 50 bridges in Illinois' District 3 to adhere to safety standards, improving structural integrity and enhancing public safety.
- Worked with senior engineers to streamline workflows, utilizing data analysis and project management tools to enhance efficiency, resulting in an increase in project speed and ensuring on-time project completion.
- Accomplished an improvement in project efficiency by analyzing past bridge and structure data using Excel and OpenRoads Designer, resulting in clear and simplified reports for senior engineers, ultimately enhancing road and bridge safety.
- Coordinated with engineers and vendors to drive project success, building strong relationships with contractors and suppliers to ensure smooth communication and efficient project execution.
- Certified by the National Highway Institute (NHI) in Safety Inspection of Bridges, ensuring 100% compliance with federal and state safety standards.

Make to Innovate (M2I), ISU, Ames, IA

CySAR Rover Design Project

January 2024

- Led the design of a rover for simulated Martian terrain using SolidWorks, improving design accuracy and aligning with NASA's standards for operational efficiency.
- Improved project outcomes by integrating design requirements, conducting NASA-based research, and tracking progress in weekly meetings, reducing design iteration time and enhancing delivery efficiency.

Weight & Balance and Density Altitude Calculators, ISU, Ames, IA

MATLAB Development

April 2023

- Developed advanced Weight and Balance and Density Altitude calculators using MATLAB, improving aircraft safety through enhanced accuracy and real-time data integration.
- Collaborated with a professor to incorporate real-world parameters like temperature and air density into safety models, enhancing the accuracy of weight and balance calculations and ensuring compliance with established safety criteria.

TRIO Student Support Services (SSS), ISU, Ames, IA

Aerospace Engineering Specialist Tutor

August 2023 – Present

- Provided academic support to 250 low-income, first-generation students with disabilities, helping them navigate course material and campus resources, contributing to an increase in graduation rates.
- Communicated essential information to 30 students, scheduled tutoring appointments, provided peer support, and answered questions in engineering courses, leading to an increase in students seeking support from various campus resources.

EDUCATION

Iowa State University, Ames, IA

Bachelor of Science in Aerospace Engineering

Anticipated May 2026

CGPA: 3.34/4.00

WORK EXPERIENCE

ISU Dining, Iowa State University, Ames, IA

Operations & Team Leadership-Student Supervisor

August 2022 – Present

- Supervised a team of 5+ student workers, boosting productivity and fostering a cohesive work environment that reduced operational errors.
- Trained and mentored 20+ new employees, resulting in an improvement in team efficiency and an increase in customer satisfaction through simplified service delivery.

SKILLS

- Programming & Tools:** SolidWorks, Python, MATLAB, AutoCAD
- Key Competencies:** CAD Design (Solidworks), Data Analysis and Reporting, Manufacturing Processes, Structural Analysis
- Software Proficiency:** Microsoft Office Suite (Excel, Word, PowerPoint, Outlook)

CERTIFICATIONS

SolidWorks Composer (LinkedIn Learning), Project Management Foundations (LinkedIn Learning), Machine Learning and AI Foundations: Classification Modeling (LinkedIn Learning)