

Krishna Dhanuk

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Profile

Mechanical Engineering student aiming to solve real-world problems using robotics, automation, design, and analysis. Interested in learning technical and non-technical skills for problem solving and critical thinking.

Education

Nast Secondary School 2076 - GPA: 3.42
National Examination Board : SLC

Pulchowk Campus, Institute of Engineering, Tribhuvan University *Running (6th semester)*
Bachelor's in Mechanical Engineering

Static and Dynamic Mechanics, Material Science, Fluid Mechanics, Engineering Drawing, CAD Designing, Fluid Machines

Skills

CAD and Simulations

SolidWorks, Auto Cad

CAM Techniques

3D Printing (Slicer Software)

Coding and AI

C, Python, Supervised and Unsupervised Learning, Deep Learning(Basics)

Soft Skills

Teamwork | Leadership | Communication | Organizational and Analytical Skills

Core Engineering

Design, Analysis, Prototyping, Systems Thinking, Problem Solving

Professional Experience

National Chapter Representative, SEDS-Pulchowk July 2023 - May 2025

Member, Robotics Club, IOE Pulchowk May 2024- present

Intern at AnK Computing Oct - Dec 2025

Project and Previous Work

C Project: Hotel and Restaurant Billing System, 1st, Semester BME

- Developed a comprehensive billing system in C for hotel and restaurant management, featuring itemized billing, automated tax calculations, and receipt generation. Utilized data structures for efficient menu management and order processing..

Automatic hand sanitizer using a dry fogger circuit, Mechtrix 2080

- Designed and fabricated an automatic hand sanitizer dispenser employing a dry fogger circuit to produce a fine sanitizing mist. Integrated Ultrasonic sensors for touch less activation and programmed a micro controller (Arduino) to control the dispensing mechanism. The prototype was exhibited at Mechtrix 2080, showcasing innovation in hygiene technology..

ABU Robocon 2024, Vitenam, Robotics Club, IOE Pulchowk Campus

- Served as a junior team member for Team Nepal at ABU Robocon 2024 in Vietnam. Assisted in the design, fabrication, and testing of mechanical components for competition robots. Collaborated with senior team members on assembly, wiring, and basic control system integration. Gained valuable hands-on experience in robotics, teamwork, and rapid prototyping under competition deadlines..

ABU Robocon 2025, Mongolia, Robotics Club, IOE Pulchowk Campus

- Served as a senior team member for Team Nepal for ABU Robocon 2025 in Mongolia. Responsible for the

mechanical design and development of key robot whole and subsystems. Conducting CAD modeling (Solidworks), material selection, and structural analysis to optimize performance according to competition rules. Coordinating with electronics teams to ensure seamless integration of drive systems, positioning of actuators and sensors.

3D Roller Coaster Design and Analysis,

- Executed 3D CAD design and finite element analysis (FEA) of an advanced pulley assembly intended for high-performance zip line coaster systems. Modeled components in (CAD Design) Solidworks and performed stress, fatigue, and deformation simulations using Solidworks (Simulation) to validate design under dynamic loads and selection material to fulfill the objectives.

Internship Project, *Ank Computing*

- Completed an internship focused on 3D data processing and artificial intelligence. Implemented 3D object classification using the PointNet++ deep learning architecture on the ModelNet10 dataset. Responsibilities included pre-processing point cloud data, training and validating models, and evaluating classification accuracy. Gained practical experience with deep learning frameworks (PyTorch) and 3D computer vision techniques.

Training, Workshop, Certification and Participation

UN women committee of SUMN, *US Embassy and Youth Thinker Society*

- Public Speaking and Persuasion, Negotiation and Diplomacy, Research and Policy Analysis, Formal Writing, Leadership and Teamwork and Critical Thinking.

7 days of ROBOCAMP 2023 Workshop, *Robotics Club, IOE Pulchowk Campus*

- Micro controller programming (Arduino), Motor driver integration and control, Embedded C/C++ programming, Team collaboration and problem-solving.

CanSat Workshop-2024, *SEDS-Pulchowk with Collaboration Orion Space*

- Sensor integration and calibration, Telemetry and wireless communication, Data logging and analysis, Systems engineering, Team collaboration and project coordination, Troubleshooting and testing.

BE level project Demonstration, *Mechtrix 2080*

- Mechanical fabrication and assembly, System integration, Prototyping and testing, Technical presentation and exhibition

BE Design Hackathon, *MechTrix 2082, SOMAES*

- We build a sanitary pad vending machine within 24 hours. In the design we built, we used a Jonson motor of 100 rpm and used a two gear for rpm reduction and sink both the rod with the GT2 timing pulley and belt, and on each rotation a pad fall at the one half rotation each time using a roller.

BE Level Project Demonstration Coordinator, *MechTrix 2082, SOMAES*

- Event planning and coordination, Stakeholder management, Team leadership, Communication and negotiation, Logistics and operations management, Time management and deadline handling, Problem-solving under pressure.

CSWA Certification, *Certified SOLIDWORKS Associate* [🔗](#)

- 3D parametric part modeling and sketching, Assembly creation and mate applications, Engineering drawing generation and annotations, Feature-based modeling (extrudes, revolves, sweeps, lofts), Mass properties and material assignment, Reference geometry (planes, axes, coordinate systems), Design intent and best modeling practices