PRABIN BHATTARAI

MECHANICAL ENGINEER

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As a graduate engineer with a specialization in mechanical engineering, I am deeply passionate about the intersection of traditional engineering principles and cutting-edge technologies. My keen interest lies in AI, machine learning, and mechatronics, areas where I have actively contributed through hands-on experience in AI-related projects and authoring research papers. In addition to my studies, I enjoy using my diverse skill set in creative fields like graphic and 3D design. My diligent nature has been a driving force behind my academic success, earning me several scholarships. Looking forward, my career objective is to build a fulfilling journey by collaborating with a team of innovative and tech-driven professionals committed to creating meaningful impact.

EXPERIENCE

AI DATA ANNOTATOR

PARETO.AI Sep, 2024 - Present

- Perform RLHF and SFT annotations to train and fine-tune AI models.
- Ensure data quality through audits and refinement of annotated datasets.
- Collaborate with teams to optimize annotation workflows and improve model performance.

ADVANCE AI DATA TRAINER

INVISIBLE TECHNOLOGIES Apr, 2024 - Nov, 2024

- Worked as an Advanced AI Data Trainer at Invisible Technologies, specializing in Reinforcement Learning from Human Feedback (RLHF).
- Acquired and applied prompt engineering basics to optimize AI model interactions.
- Performed detailed image and video annotations to enhance machine learning datasets.

RESEARCH ASSISTANT

GREEN HYDROGEN LAB Feb, 2023 - Oct, 2023

- Analyzing experimental data using statistical and computational tools.
- Collaboration with fellow researchers,graduate students and faculty members within lab.
- Assisting in the preparation of grant proposal to secure funding
- Contributing to the development of new technologies or improvement of existing ones

Tools: MATLAB, Python, ImageJ,TensorFlow,MS Excel, MS Word

QUALITY CONTROL ENGINEER

BOTTLERS NEPAL May, 2022 - Jan, 2023

- Creating and deploying AI-enhanced robotic systems for precise and versatile tasks, such as packaging, sorting, and wrapping
- Implementing AI-based machine vision systems to inspect and ensure the quality of food.
- Designing AI-driven conveyor systems to automate the movement of raw materials and finished products.

Tools: Minitab, Cognex VisionPro, TensorFlow , Power BI

DATA ANALYST

KATHMANDU UNIVERSITY

ENERGY SYSTEM TECHNOLOGY AND RESEARCH LABORATORY Jan, 2021 - Jun, 2021

- Integrating sensor data analysis into IoT platforms for real-time monitoring
- Analyzing temperature and pressure sensor data to evaluate thermal performance
- Developed machine learning models.
- Filtering and smoothing sensor data to extract relevant information and trends.

Tools: MATLAB, HOMER Pro, ArcGIS, MS Word,MS Excel

RESEARCH INTERN

KATHMANDU UNIVERSITY

TURBINE TESTING LAB Jan, 2021 - Mar, 2023

- Conducting experiments to collect data on turbine performance
- Installing and calibrating sensors and instrumentation devices for accurate data

- Analyzing the collected data using software tools such as MATLAB, Python, or specialized turbine analysis software
- Tools: MATLAB, Python, C, Solidworks

GRAPHIC DESIGNER

IDP NEPAL Feb, 2019 - Apr, 2021

- Graphic design for social media post.
- Social Media content management

Tools:Canva,Adobe Photoshop, DaVinci Resolve

TRAINER- RESEARCH PAPER WRITING

ASSOCIATION OF MECHANICAL ENGINEERING STUDENTS Jan, 2019 - Nov, 2021

- Trained research paper writing techniques, finding research gaps.

EDUCATION

BACHELORS IN MECHANICAL ENGINEERING

KATHMANDU UNIVERSITY Jan, 2018 - May, 2022

GRADE-3.59/4 CGPA
75% merit based scholarship for academic excellence.
Batch topper:2018-2022

HIGH SCHOOL

XAVIER ACADEMY Feb, 2016 - Jan, 2018

GRADE-3.65/4 GPA
90% merit based scholarship for academic excellence

SECONDARY EDUCATION

SANA KISAN SECONDARY SCHOOL May, 2005 - Dec, 2015

GRADE-3.85/4 GPA

PROJECTS

STUDY AND FABRICATION OF PLASTIC PYROLYSIS UNIT

- Study, design and fabrication of plastic pyrolysis unit
- Designed in Solidworks,analysed in Ansys and simulation in Aspen Plus
- Unit converts the plastic into crude oil
- Around 800-900 ml of crude oil obtained from 1.5kg plastics

STUDY AND FABRICATION OF MULTIPURPOSE CRUSHING MACHINE

- Study,design and fabrication of multipurpose crushing machine
- Designed in Solidworks
- Fabrication done with Welding,Rolling,Grinding
- Crushes vegetables and cans

STUDY AND FABRICATION OF PISTON CYLINDER ARRANGEMENT

- Study,design and fabrication of piston cylinder arrangement.
- Designed in solidworks and fabricated using Lathe,Milling,Grinding
- Demonstrates how slider crank mechanism helps in piston cylinder working

TRAINING/CERTIFICATIONS

LEADERSHIP TRAINING

ASPIRE INSTITUE/HARVARD UNIVERSITY

C,C++

KATHMANDU UNIVERSITY

MATLAB

KATHMANDU UNIVERSITY

PYTHON,JAVA,FIGMA

KATHMANDU UNIVERSITY

SKILLS

Graphic Designing, Content Creation, MS office, Public Speaking, Project Management

LANGUAGE

English, Nepali, Hindi

REFERENCES

PRAKASH SHRESTHA - *VICE PRINCIPAL*

XAVIER ACADEMY

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SAILESH CHITRAKAR - *ASSISTANT PROFESSOR*

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