RUPESH SHRESTHA

Mechanical Design Engineer | Berkeley, CA 94720 | rupesh@berkeley.edu **LinkedIn**:linkedin.com/in/shrestha-rupesh
Portfolio: www.shrestharupesh.com

EDUCATION

University of California, Berkeley - Master of Engineering, Mechanical (Product Design), CGPA: 3.5 Exptd.: May 2024

- Lead Teaching Assistant for 'Robotic Locomotion' Course under Professor H. Kazerooni.

Dr. Ambedkar Institute of Technology, India - Bachelor of Engineering, Mechanical, CGPA: 3.96 Sept 2021

SKILLS

Design, CAD/CAM/CAE: Solidworks, CATIA V5, Fusion 360, Siemens NX, AutoCAD, Ansys, Mold Design, Plastic Trim Design, Surface Design, Sheet Metal Design, Weldments Design, Drafting, 3DEXPERIENCE Platform, Product Lifecycle Management (PLM), Fusion 360 CAM, Finite Element Analysis (FEA)

Manufacturing: Geometric Dimensioning and Tolerancing (GD&T), Design for Manufacturing and Assembly (DFMA), Injection Molding, 3D Printing, machine shop skills: cutting, welding, grinding, sheet metal work

Programming and Miscellaneous: Python, MATLAB, HAP 4.9, Ms Excel, MS Office, Google Workspace

WORK EXPERIENCE

National Innovation Center (NIC), Mechanical Engineer | Kathmandu, Nepal Jan 2022 – Mar 2022

- Worked on the research, design, and manufacturing phases of Nepal's first Bike Ambulance project, to develop a solution for emergency medical transportation in narrow street communities, increasing the response time by **45%**.
- Designed the Bike Ambulance with integrating features such as a foldable bed and oxygen cylinder mount on **SolidWorks**, and conducted iterative FEA simulations on **Ansys** to ensure structural integrity and performance.
- Mastered fabrication techniques such as **cutting, welding, grinding, sheet metal work, riveting, heat treatment, laser cutting, and 3D printing**, adhering to best practices and **safety protocol**, boosting team's productivity.

Entegra Sources, Mechanical Design Engineer | Kathmandu, Nepal June 2021 – Dec 2021

- Designed and analyzed **over 600** mechanical components using **SolidWorks** and **CATIA V5**, ensuring adherence to design specifications and conducting comprehensive Finite Element Analyses **(FEA)** in **Ansys** to evaluate structural integrity, thermal behavior, and fluid dynamics, ensuring higher Factor of Safety (FOS).
- Collaborated with cross-functional teams to seamlessly integrate design and analysis components into final engineering documentation, ensuring clear and coherent project deliverables.
- Developed standardized design procedures and best practices, streamlining workflows and **improving team efficiency by 35%**, facilitating faster project completion and higher productivity levels.
- Played a key role in client meetings and presentations, effectively communicating technical concepts and project progress updates, resulting in a high level of client satisfaction and repeat business opportunities.

Princeton Smart Engineers, HVAC Design Engineer Intern | Bangalore, India Jul 2020 – Aug 2020

- Mastered heat load calculation techniques, utilizing both manual **E20 forms** and **HAP 4.9** software to accurately determine cooling and heating requirements for a School project, ensuring optimal HVAC system design.
- Applied advanced duct sizing methodologies, employing HAP, **Duct Sizer** software, and **AutoCAD** drafting to optimize airflow distribution and system performance, contributing to the efficient operation of the HVAC system.
- Assisted in the creation of detailed project estimates and submittal documentation, gaining exposure to project management processes and client communication protocols within the **MEP design industry**.

LEADERSHIP EXPERIENCE

UC Berkeley, Inclusive Technology Affinity Group Leader | Berkeley, CA Feb 2022 – Present

- Conducted tech events to support underrepresented groups and communities, connecting **120+ students**.
- Organized mentorship and networking events to help students develop their careers in the tech industry.

US Embassy Youth Council, Council Member | Kathmandu, Nepal Jan 2023 – Dec 2023

- Collaborated in a Civic Engagement Project on business law, digital finance literacy, and entrepreneurship, empowering **60+ women** in small and cottage industries in Kanchanpur.
- Led USYC Nepal's strategic initiatives, organizing community engagements, panel discussions, and development programs, empowering youth and increasing their leadership interests.

CERTIFICATIONS

Certified SolidWorks Expert (CSWE) - SolidWorks - Mechanical Design July 2021

Post Graduate Program in CAD - Skill-Lync Nov 2020

CAD and Digital Manufacturing Specialization - Coursera Nov 2020