Prabhat Adhikari

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Mechanical Engineering '20 / University of Pittsburgh GPA: 3.96/4.00

Swanson School of Engineering Dean's List

Skills

- **Software:** Excel, MATLAB, Solidworks, ANSYS Workbench, Ultimaker Cura, Git, KiCAD EDA
- **Programming:** Python, Arduino, C (Intermediate), VBA (Intermediate)
- **Other:** Experience using various power tools and fabrication methods – laser cutting, milling, soldering, 3D printing, circuit board design, motor vehicle maintenance and repair.

Experience

MAY 2016 – MAY 2017

Case Manager / AJAPO (A refugee resettlement agency in Pittsburgh)

- Corresponded with outside agencies to ensure the provision of all necessary services to new refugees, including housing acquisition and furnishing, medical and welfare appointments, school enrollments, and employment training.
- Handled a caseload of up to ten families at once and ensured that all services were delivered on time.

MAY 2015 – MAY 2017

Interpreter / AJAPO and JFCS (Jewish Family and Community Services)

- Worked as an independent contractor to provide Nepali interpreting services to the two refugee resettlement agencies
- Provided interpreting services for medical and welfare appointments, seminars, job training and orientation.

SEPTEMBER 2018 – PRESENT

Payload Sub-team Lead, Co-founder / Pitt Rocketry Team

- Led the hardware and software development and testing of an autonomous rover to be deployed from a high-powered rocket for the NASA Student Launch competition.
- Created and improved the CAD models of the rover and its deployment system to optimize for manufacturability, strength, and weight. Resulted in mass savings of over 30% from initial estimate.
- Designed a printed circuit board for the rover conforming to strict geometric constraints, and programmed the microcontroller to achieve autonomous driving, orientation correction and radio communication while optimizing RAM usage, resulting in an as-tested reliability that exceeds 95%.
- Created and updated the CAD models of the sub-scale and full-scale launch vehicles and performed simulations to predict the flight performance, which led to key changes in the vehicle's design including ballast mass and placement, motor choice, parachute size and fin design.