BIKASH GYAWALI

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OBJECTIVE

To secure a challenging position as a research assistant under the guidance of esteemed professors, where I can apply my knowledge and skills in data analysis, machine learning, and statistical modeling to contribute to ongoing research projects and gain practical experience in the field. I am passionate about leveraging data-driven insights to solve complex problems and eager to learn and grow within a collaborative and intellectually stimulating academic environment.

EDUCATION

Bachelor's Degree in Computer Engineering, IOE, Tribhuvan University **2017-2022**
Relevant Coursework: Studied Artificial Intelligence, Data Mining, Big Data technologies, Software Engineering, Database management System as the main courses.
Obtained grade: 77.05 %

TRAINING AND CERTIFICATION

Certification for Registered Engineer, Nepal Engineering Council **2022**

TECHNICAL SKILLS

Programming Languages : C, Python, C++, HTML, CSS, JavaScript, MySQL, Git, Pandas, Numpy, Matplotlib

WORK EXPERIENCE

Code Fusion Technologies Pvt. Ltd, Software Engineer **Sep 2022 - Present**

- **HMIS** (Health Management Information System) - Involved in creating, managing and deploying using React, Javascript, HTML and CSS. This robust government project was intended to record patients of Health Post and to generate monthly reports. It is deployed under domain https://hmis.samyantra.org/

- **Samyantra -** Samyantra is an amalgamation of different modules used to generate reports on different levels (Municipality, District, Province and Central Government).

- Developed and maintained web applications like PLANNING, ICMS, PIS, including bug fixes, enhancements, and new features.

- Provided training to government health professionals for the use of the system.

- Participated in daily stand-up meetings, weekly status meetings, and monthly all hands meeting with the team to stay up-to-date on project progress and roadmaps.

PROJECTS

Weather Forecasting Using ANN **2021**

- Develop a weather forecasting model specifically tailored for Nepal using Artificial Neural Networks (ANN).
- Collected historical weather data for different regions of Nepal. This data included variables such as date, time, temperature, humidity, pressure, wind speed, and direction. Multiple years of data are usually collected to capture seasonal patterns and long-term trends.
- Preprocessed the data before feeding it into the ANN model that included data cleaning, handling missing values, scaling or normalizing the data, and splitting it into training and testing sets.
- Trained using the collected historical weather data and optimized the model's weights and biases to minimize the difference between the predicted weather values and the actual observed values. This optimization was achieved using a backpropagation algorithm.
- Evaluated the model to assess accuracy and performance. Accuracy was obtained around 78%.

Single Image Super Resolution Using Generative Adversarial Network(GAN) **2022**

- Enhanced the resolution and quality of a given low-resolution image, making it visually closer to a high-resolution version.
- Large dataset(DIV2K, CELEBA-HQ) of paired low-resolution and high-resolution images used to train the GAN.
- Evaluated the model using various metrics such as peak signal-to-noise ratio (PSNR), structural similarity index (SSIM), and perceptual metrics like the mean opinion score (MOS) obtained from human raters.
- PSNR for DIV2K dataset was obtained 25.15 which had benchmark 32.82, SSIM of 0.758 which had benchmark 0.8837 respectively.