Prajjwal Pandey

Kathmandu, Nepal

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Education

- **Bachelors Degree in Computer Engineering**　　　　　　　　　　**2021-Present**
  Pulchowk Campus, Tribhuvan University, Lalitpur, Nepal

- **School Leaving Certificate**　　　　　　　　　　　　　　　　　　**2019**
  Kathmandu Model College, Kathmandu, Nepal

Work Experience

- **Director of Research and Development**　　　　　　　　　　**2025-Present**
  SEDS Pulchowk, Lalitpur, Nepal

- **Research Coordinator**　　　　　　　　　　　　　　　　　　　**2023-2025**
  SEDS Pulchowk, Lalitpur, Nepal

- **Graphic Designer and Developer**　　　　　　　　　　　　　　**2022-2024**
  LOCUS, Nepal

Skills

- **Programming** Python, C/C++

- **Data and Machine Learning**: SQL, AWS, Scikit-learn, PyTorch, TensorFlow, NumPy, Pandas, Matplotlib

- **Mathematics** Probability, Statistics, Linear Algebra, Differential, Matrix Calculus

- **Platforms** Linux, Hadoop, Jupyter Notebook, Docker, Git/GitHub, Django, FastAPI, Latex

Projects

- **Timber Transfer with DDSP**　　　　　　　　**Major Project, Pulchowk Campus**
  Developed a music style transfer system that transforms any sound input into the harmonic characteristics of the Sarangi. Trained an autoencoder on 25 minutes of Sarangi recordings using Differentiable Digital Signal Processing (DDSP) to learn and replicate its unique timbre.

- **NepaliCharacterRecognition**　　　　　　　　　　　　　　　　**Numpy**
  Built a Neural Network from scratch using only Numpy, to develop a model capable of recognizing Nepali Characters(46).

- **Breeding Giant rats**　　　　　　　　　　　　　　**Genetic Algorithm**
  Genetic Algorithms (GAs) are optimization and search techniques inspired by the principles of natural evolution and genetics which is used here to breed a race of super rats that can terrorize the world. I mean, ofcourse a 50kg giant rat would look scary, wouldn't it?

- **Are We Alone?**　　　　　　　　　　　　　　　　　　　**Probability**
  The Drake Equation used to estimate the possible number of civilizations in the galaxy currently producing electromagnetic emissions, utilized here to estimate the probability of existence of any other advanced civilization.

- **Personal Blog Page**　　　　　　　　　　　　　　**PostgreSQL, Django**
  Blog Page developed in Django with databse supported by PostgreSQL and finally deployed in render through github.

- **HostelHUB**　　　　　　　　　　　　　**Minor Project, Pulchowk Campus**
  MERN Stack Project that supports the Pulchowk Campus Boys Hostel administration and management.

Certifications

- **Machine Learning**   **DeepLearning.AI Stanford University**
  Built and trained models using NumPy, scikit-learn and neural networks with TensorFlow applying best practices in ML development. Explored supervised, unsupervised and deep reinforcement learning models.

- **Data Engineering**   **Genese Solutions / AWS Academy**
  Learning Data Engineering Practices in Genese Solution, Pulchowk using AWS Acadeny resources.

- **Applied Data Science**   **WorldQuant University**
  Practicing an intensive data science lab covering end-to-end machine learning pipeline from database management to predictive modeling, with hands-on experience in SQL/NoSQL databases and regression/classification algorithms.

- **Applied AI Lab: Deep Learning for Computer Vision**   **WorldQuant University**
  Practicing advanced deep learning certification covering full lifecycle of AI projects, including neural network architecture, model deployment, and computer vision applications with hands-on debugging experience.

Awards and Achievements

- **All Nepal Rank 11**, IOE Entrance Examination   **2021**
- **Mahatma Gandhi Scholarship**, Indian Embassy   **2018-20**

Accomplishments

- Mentor at Children in Technology Initiative "LOCUS 2025 x Worldink,Nepal"   **2024**
- Instructor at "LOCUS Software Fellowship 2025"   **2024**
- **LOCUS CUP Coordinator** of LOCUS 2023 and 2024, Nepal   **2023-24**
- **Design Chief** of LOCUS 2024, Nepal   **2023-2024**
- **Secretary** of GAP Student Society, Pulchowk Campus, Nepal   **2023-2024**
- **President** of Boys Scout, New Horizon Higher Secondary School, Nepal   **2016-2017**