

# Diwas Pandey

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## Education

### M.S. in Computer Science

SALMON CREEK, WASHINGTON

Washington State University

08/2022 - 05/2024 (expected)

- Current GPA: 4.00
- Relevant Courses: Artificial Intelligence, Machine Learning, Neural Network, Computer Vision

### B.E. in Computer Engineering

KATHMANDU, NEPAL

Tribhuvan University, Nepal

10/2016 - 05/2021

- Grade: 79.09%, Full Scholarship Awardee (2016-2021)
- Capstone Project: Real-Time Number Plate Recognition System using Computer Vision

## Experience

### Graduate Research: Thesis (Bio-Markers on ECG Data )

SALMON CREEK, WASHINGTON

Washington State University

08/2022 - Present

- Led research on individual identification through ECG data, focusing on optimizing R-peaks detection and enhancing pre-processing techniques
- Implemented methodologies from research papers evaluating outcomes in comparison to established methods
- PlexNet: Utilized transfer learning and ensemble methodologies to outperform CNN-based approaches
- Further research involves Python analysis on diverse activities to refine Pytorch model

### Team Lead, Machine Learning Engineer Level II

JHANSIKHEL, LALITPUR NEPAL

Bottle Technology, Pvt. Ltd.

11/2020 - 06/2022

- Led a research project on enhancing Nepali Citizenship data, employing OCR and NER techniques
- Implemented Smart Advertisement system for ad viewership analysis, utilizing pedestrian and vehicle detection
- Released a rule-based transliteration PyPI package 'Nepali-to-Roman' and deployed a Restful API on AWS EC2 Docker

### Founder Admin & Content Writer

KATHMANDU NEPAL

aihubprojects.com

11/2019 - Present

- Authored a book on Machine Learning algorithms and Python with scratch implementations
- Published articles and tutorials on Python, ML, NLP, and Computer Vision, collaborating with institutions like VIT Vellore and IIT Bangalore, India

## Machine Learning Projects

### River Network Extraction From Satellite Images

USED PYTHON, OPENCV, U-NET, AND ATTENTION U-NET ON 18,000+ SATELLITE IMAGES

### Fake License Plate Generation

PYTHON, OPENCV, GAN | GENERATED ANNOTATED LICENSE PLATE IMAGES USING GANS

## Technical Proficiencies

**Programming Language** Python, C++

**AI Tools** Scikit-learn, OpenCV, PyTorch, Numpy, Pandas, Matplotlib

**Expertise** Computer Vision, Convolutional Neural Network(CNN), Machine Learning Algorithms

**AWS Services** EC2, S3, Sagemaker, AWS Rekognition, AWS Lambda

**IDE** Visual Studio, Jupyter Notebook, Google Colab, Sagemaker

**Back-end** Flask API, FAST API

**Languages** English, Nepali, Hindi