# Pratik Dwivedi

Software Developer and AI Engineer

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#### **Profile**

As a computer science engineering student specializing in Artificial Intelligence, with a keen interest in computer vision, NLP, and generative AI, I am eager to contribute my skills and knowledge to an internship opportunity that aligns with my passion for AI/ML.

With a strong foundation in machine learning, natural language processing, and programming languages like Python and C++, I am committed to collaborating with cross-functional teams to address specific challenges and deliver innovative software and AI/ML solutions.

# **Internships / Work Experience**

## Contactless Biometric Identification System with Gesture based IOT control

Sep 2023

Lead AI Engineer

Bennett University (DSCI)

- 1. Designed a novel palm-print identification system with gesture recognition, designed software pipeline for ROI extraction of palm prints.
- 2. Deployed the ROI extraction pipeline using websockets for communication between python backend and Flutter based frontend.
- 3. Al system for feature extraction and verification of individual palmprints and a backend service for gesture recognition enabling control.

# **Projects**

#### **Architectural Layout Generation**

Ongoing

- Designed a Multi-Modal GAN for stack generation of doors and windows on plain plot images, followed by layout generation and closing
  with furniture layouts.
- 2. Experimented with different architecture in GANs and explored different variants of GANs such as Pix2Pix, Cycle and conditional-GANs.

#### Liquid Neural Networks for Time Series Analysis

Ongoing

- 1. Led a project focused on implementing various Time series analysis techniques, including traditional statistical approaches, Univariate models, Machine Learning approaches, and Deep Learning approaches, to make robust predictors that stand the test of time.
- Conducted extensive Hyperparameter tuning to enhance model accuracy, investigated the impact of different deep learning approaches and how Liquid Neural networks perform against traditional and state-of-the-art models, and identified critical features influencing time series predictions.

#### Legal Document Extractive Summarization

Ongoing

- . Custom Dataset Generation (Cleaning, Labeling) of legal documents; utilized Pretrained BERT models for embeddings.
- 2. Dealt with variants of LSTM Networks and Transformers, worked with different loss computations, and performed hyperparameter tuning.
- 8. Comparative study on different networks and analysis of which approach performs better at what specific task.

# **Education**

#### **Bennett University, Greater Noida**

2025

B. Tech CSE | Specialization: Artificial Intelligence (CGPA: 9.09)

# **Skills**

- Languages: Python, C++, Java, SQL, HTML, CSS, Dart
- Technical Skills: DSA, Generative AI, Machine learning, Deep Learning, Cloud Computing, REST APIs, Websockets, AWS
- Framework: Scikit-learn, TensorFlow, Pytorch, Flutter, Flet (python),
- Soft Skills: Teamwork, Problem Solving, Leadership, Communication Skills, Critical thinking, Effective Time Management

# **Research Paper**

# **Legal Document Summarization**

Ongoing

Conducting research on legal document summarization, involving data labeling and preprocessing, a comparative study of LSTM variants and Transformers, pretrained transformers, and model evaluation focused on comparing LSTM types for accuracy.

#### **Certificates**