# Suramya Pokharel

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### **SKILLS**

PROGRAMMING LANGUAGES | Python • Java • R • C++

**MACHINE LEARNING FRAMEWORKS** | Tensorflow • Pytorch • scikit-learn

**DEEP LEARNING** | Neural Network Design • Natural Language Processing (NLP) • CNNs • RNNs

**COMPUTER VISION** | OpenCV • Object Detection and Recognition • Image Processing

**DATA HANDLING** | Numpy • Pandas • Matplotlib • Feature engineering • Data Cleaning

**DATABASE MANAGEMENT | SQL • Mongo DB** 

**SOFTWARE DEVELOPMENT** | Version control (Git) • Agile Methodologies

**OTHER TOOLS** | Jupyter Notebooks • Docker • LaTeX • Gimp

### **PROJECTS**

**PUZZLE FLOW** | PRIMARY CODER AND JOINT LEADER May 2023 - Present | Thapathali Campus, Kathmandu

- Proposed the usage of generative models in the sector of restoring shattered documents and gene assembling.
- Implemented Flow-based generative AI model along with Vision Transformer (ViT) to acquire high accuracy.
- Used Python as the main programming language and Pytorch to implement the said models.

# **AN ELECTRONIC WATCH DOG** | Joint Lead for Software Implementation

Nov 2022 - Mar 2023 | Thapathali Campus, Kathmandu

- Lead the development of face detection system that relied on Haar Cascades to determine the facial area during live video feed.
- Constructed a robust system relying on FaceNet architecture to recognize the detected faces.
- Employed SMTP protocol to send email containing the photos of unrecognized faces to the owner.
- Coded Arduino micro-controller with subsequent code and aided in assembling and soldering the electronic components.

### **HOSPITAL MANAGEMENT SYSTEM** | CLASS PROJECT FOR

DATABASE MANAGEMENT SYSTEM

Jun 2022 - Aug 2022 | Thapathali Campus, Kathmandu

- Employed mySQL database system to store data of patients, doctors and other involved faculties of hospital.
- Created back-end functions connecting the database to the hospital website to ensure fast and proper transfer of information.
- Aided the front-end development of website through basic CSS and Diango coding.

#### **EDUCATION**

## THAPATHALI CAMPUS, TRIBHUVAN UNIVERSITY

BACHELORS IN ELECTRONICS, COMMUNICATION AND INFORMATION ENGINEERING Expected Apr 2024 | IOE, Thapathali, Kathmandu

### TRINITY INTERNATIONAL COL-LEGE

HIGH SCHOOL DIPLOMA, COMPUTER SCIENCE Jun 2017 - Dec 2019 | Dillibazar, Kathmandu

### COURSEWORK

Data Structures and Algorithms
Data Mining
Artificial Intelligence
Database Management System
Computer Graphics
Digital Signal Analysis and Processing
Operating Systems
Calculus I-IV
Discrete Structure
Object Oriented Software Engineering
Probability and Statistics

### LINKS

Github: SuramyaP

LinkedIn: Suramya Pokharel

#### INTERESTS

Chess • Reading • Piano • Fitness • Self Improvement • Sports