

# Suramya Pokharel

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## SKILLS

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

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

**PYTHON FRAMEWORKS** | Django • FastAPI • Streamlit • LangChain • Flask

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

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

**DATABASE MANAGEMENT** | SQL • MongoDB

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

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

## 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 Django coding.

## EDUCATION

**THAPATHALI CAMPUS, TRIBHUVAN UNIVERSITY**

BACHELORS IN ELECTRONICS, COMMUNICATION AND INFORMATION ENGINEERING

Expected Apr 2024 | IOE, Thapathali, Kathmandu

**TRINITY INTERNATIONAL COLLEGE**

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](#)

Website: [suramyapokharel.com.np](http://suramyapokharel.com.np)

## INTERESTS

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