sudesh.contact@gmail.com · +977 9765624237 · Pokhara-11, 33700, Gandaki, Nepal

Sudesh Acharya

- Fields: **Software Development, Data Science, and Deep Learning.**
- Stacks: Python3, HTML5|CSS3|JS, MongoDB|MonetDB, C/C++, Basic Rust.
- Utils: RTOS, DjangoREST, Numpy, Pandas, Matplotlib, PyTorch, OpenCV, AWS|GCP, Gymnasium, Linux, Git, Docker, ROS2, etc.
- Enjoys: Knowledge-exchange, Music, Learning new stuffs, Seasonal Hobbies.
- Languages: German: Fluent, Hindi: Fluent, Nepali: Native, Russian: Beginner

Summary

Spirited Developer ready, to offer acquired Software(Instruction, Test-driven) and Machine Learning(Data-driven) development skills and experiences, to spend effort on exciting and fulfilling projects, seeking to undertake such roles and work on innovative and SOTA solutions.

Experiences Timeline

2025.03-now **Embedded C Developer - Kathmandu, Nepal** — imark Digital

- Development of Payment application for Embedded RTOS based PoS systems
- Implementation of DQR/Card based payment, HTTP, MQTT, and Other communication Stacks for reliable communication.

2023.11-24.08 **Data Science Researcher Intern - Munich, Germany** — FfE e.V.

- Development of a Prosumer Reinforcement Learning Agent for Energy Cost Optimization.
- Using Gymnasium and StableBaselines3 , based on PPO, SAC TD3 Algorithms.

2022.07-23.08 **API server Development with DjangoREST - Karlsruhe, Germany** — CloudFluid GmbH

- Development of Cloud(GCP, AWS) Interface[API] for fluid Cloud-based Simulation Service.
- DRF based Django User Auth., Service Backend, Logging(structlog), and Testing(PyTest)

2021.10-22.03 **Data Analytics and Reporting - Rostock, Germany** — VestiFi GmbH

- Generation of Visualization(Matplotlib, Seaborn) and Reporting(LaTeX, Jinja).
- Extraction(MonetDB SQL), Transformation(Numpy), and Loading(MongoDB) pipeline for wifi radio pcaps.

2021.05-22.02 **Lidar Data Analysis, and ETL - Kiel, Germany** — FuE FH Kiel GmbH

- Raw maritime 3D Lidar data collection and management within Kiel Förde
- Analysis and Transformation of raw Lidar data to several point cloud formats(.pcd, .npy)

2021.(05-06) **NLP/NLU Development Internship - Munich, Germany** — ROKIN GmbH

- Document Classification(tagging) with BERT and Derivatives
- NLP based Model Development, Evaluation, Article prediction and Testing using Google Cloud Platform (GCP)

2017.(02-05) **ODOO Module Programmer - Lalitpur, Nepal** — BI Solutions Pvt. Ltd.

- ODOO ERP and CRM Custom Module Development
- Python /ORM /MVC, PostgreSQL, Scrum/Kanban Project Mgmt.

Academic Timeline

2012 - 2016 **Bachelor's Degree** — RGPV University, India

- Computer Science and Engineering
- Theory of Computation, Data Structures and Algorithms, Digital Circuits and System etc.

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2010 - 2012 **High School** Caribbean HSS, Nepal

- Major : Natural and Formal Science
- Modern Physics, Biology, Chemistry, and Mathematics

Personal and Academic Projects

2020 - 2021 **Exploration of Art Generation using Deep Generative Models** PyTorch

- Exploration and Evaluation of Generative Models in Art Generation Domain.
- Progressive Implementaiton and Observation on (Unconditional and Conditional) GANs

2020 - 2021 **Classification of Thoractic diseases using Deep Learning** Keras | Tensorflow

- Implementation, Optimization and Evaluation on Custom CNNs.)
- Pre-training and Fine Tuning(Transfer Learning) using Densenet121 Architecture

2019- 2020 **Time Series Analysis and Forecasting for Energy Prosumption** Python, R

- Time Series Analysis and Forecasting using Classical ARIMAs and ML algorithms
- On an hourly energy production and consumption data from *energycharts.info*

2019- 2020 **Model Selection,Data Exploration and Visualization** Scikit-Learn

- High-dimensional Data Exploration: PCA, LDA, t-SNE, ISOMAP etc.
- Model Selection, Validation and Evaluation using criterias (AIC, BIC, MDL)

2018 - 2019 **Classical Machine Learning Implementation** Scikit-Learn

- Clustering, Classification, Regression: Support Vectors, Perceptron, DecisionTree, KNN)
- Data: UCI banknote authentication, Segmentation, Mice Protein data Clustering, etc.

Certification Courses

2020 - 2021 **Python for Data Science, AI and Development** IBM | Coursera

- Fundamentals of Python Programming for Analytics
- Data Analysis with Numpy,Pandas, Matplotlib, and Seaborn

2020 - 2021 **Deep Learning Specialization** Coursera

- Deep Learning Fundamentals, Computer Vision, Sequence and Attention Models(NLP, NLU)
- Optimization, Hyperparameter Tune/Search, and Regularization.

2020 **AI for Medical Diagnosis** Deeplearning.ai

- Disease detection and classification using Convolutional Neural Networks
- Evaluation metrics, domain challenges with medical datasets

LinkedIn : *linkedin.com/in/acharya-sudesh/*
Github : *github.com/mnpr-vcs/*

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