Bishal Gautam

Personal Information

Address: Gründenseestraße 35, 60386 Frankfurt am Main

Nationality: Nepalese

Date of Birth: 29.12.1996

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Portfolio: `https://bisalgt.github.io`

Experience

- **WISSENSCHAFTLICHE HILFSKRAFT**
  FZI Forschungszentrum Informatik | Karlsruhe, Germany | 04.2023 - 04.2024

  – Generated and shared test data for self-driving cars using CARLA and ROS2.

  – Processed and Visualized 3D point cloud data (KITTI, CARLA) using Python, NumPy, Pandas, Jupyter Notebooks, and Streamlit.

- **STUDENTISCHE HILFSKRAFT**
  Frankfurt University of Applied Sciences | Frankfurt, Germany | 06.2023 - 12.2023

  – Streamlined autonomous labeling pipelines for ultrasonic sensor data using machine learning and computer vision techniques, collaborating with a team to enhance data annotation efficiency.

- **SOFTWARE DEVELOPER (WORKING STUDENT)**
  eMedicals Healthtech GmbH | Frankfurt, Germany | 08.2022 - 03.2023

  – Extracted dialysis center and medication data through web scraping, built ETL pipelines, and saved in SQL database.

  – Developed RESTful APIs (Django) and worked with Azure DevOps (VMs, CI pipelines).

- **TECH INTERN (DATA SCIENCE)**
  Insightfulme GmbH | Berlin, Germany | 03.2022 - 05.2022

  – Analyzed user data in BigQuery and Amazon RDS to track metrics like daily/monthly active users, retention rates, and engagement trends, while implementing tests for GitHub Workflow (CI/CD).

- **SERVICE ENGINEER**
  East West Concern Pvt. Ltd. | Nepal | 02.2020 - 09.2021

  – Delivered technical support and service for medical devices in hospitals and health institutions during the COVID-19 pandemic, ensuring seamless integration and operation.

Languages

- **English:** C1
- **German:** B2(Running)
- **Hindi:** C1
- **Nepali:** Native proficiency

IT-Skills

Programming:	Python
Data Analysis:	NumPy, Pandas
Visualization:	Plotly, Streamlit
ML:	Sklearn, Tensorflow
Web/API:	FastAPI, Django
Databases:	MySQL, MongoDB
Cloud:	Docker, Azure, VMs
Version Control:	GitHub, Bitbucket
Simulation:	ROS, Rviz2, CARLA
PM Tools:	Jira, Confluence
Others:	Linux, Postman, Bash

Volunteering

- PyCon DE & PyData 2025
- PyCon DE & PyData Berlin 2024
- PyCon DE & PyData Berlin 2023
- Web Weekend Kathmandu 2019

- **SOFTWARE DEVELOPER (PROJECT BASED FREELANCER)**
  Pro-Mech Minds & Engineering Services Pvt. Ltd.| Nepal | 01.2020 - 07.2020

  - Developed APIs, performed web scraping, and cleaned data for the quiz app, incorporating sentiment analysis and profanity detection for user input validation.

- **ROBOTICS / ELECTRONICS TRAINER**
  Futani Technology Pvt. Ltd.| Nepal | 09.2017 - 12.2019

  - Taught students robotics, developed projects, and organized exhibitions.

Education

- **Master of Engineering in Information Technology**
  Frankfurt University of Applied Sciences | Germany | 10.2021 - 06.2024

  Thesis: *Enabling scenario-based testing for point cloud based vulnerable road users detection in the context of highly automated driving. – conducted at FZI Forschungszentrum Informatik, Karlsruhe*

  - Developed a LiDAR data augmentation method by extracting and integrating point cloud prototypes, using raycasting for realistic shadow generation, with visualization and analysis.

  Projects:

  - Implemented semantic segmentation and developed an autonomous labeling pipeling for ultrasonic sensor data, with visualization in a Tkinter-based GUI.
  - Deployed ML application using Docker and Azure Cloud.
  - Semantic Segmentation of University Surrounding using Mask-RCNN.

  Final Grade: 1.6

  Attended Modules: Machine Learning, Software Engineering, Cloud Computing, Image Processing, Vector Analysis, etc.

- **Bachelor of Engineering in Electronics and Communication**
  Tribhuvan University | Nepal | 09.2013 - 09.2017

  Thesis: *IOT based Tele-Robot using Raspberry Pi.*

  - Enabled remote control and monitoring of a robot via a web interface, with realtime movement control and environmental data collection.

  Final Grade: 2.3