Itixa Talaviya(Student Visa)

Master of Technology
Web Engineering
Public university in Chemnitz, Saxony
DOB: 11/06/1999

+49 1794151813
37lakhmi@gmail.com
Github
Linkedin
Gustav-Freytag-Straße,6,09111,Chemnitz,Germany

SUMMARY

Computer Vision and AI Engineer with hands-on experience in Python, Machine Learning, and Deep Learning for real-time automation and robotics. Skilled in computer vision, UAV tracking, and medical image analysis using CNNs, YOLO, and OpenCV. Experienced in developing AI-driven web and cloud applications with modern frameworks like Flask, Node.js, and MongoDB. Passionate about applying research and innovation to create practical, efficient AI solutions.

EDUCATION

Technische universität chemnitz

Feb 2025 - Expected 2027

M.Tech in Web Engineering — *Chemnitz*

- Neurocomputing
- Intoduction of AI
- Cloud and Web Applications
- DataBase and Web Technology
- Advanced Management of Data
- Machine Unlearning for the Decentralized Web
- Chatbot Experimentation Services

Technische universität chemnitz

Feb 2022 - Feb 2025

M.Tech in Automotive Software Engineering — *Chemnitz*

- Formal Specification and Verification
- Image Understanding
- Automotive Software Engineering
- Software Engineering and Programming Basics
- Design of Software for Embedded Systems
- Software Platforms for Automotive Systems
- Hardware/Software - Codesign 1/2
- Mobile Networks
- Software Service Engineering
- Network Security
- Media Coding

Gujarat Technological University

July 2016 – May 2020

B.Tech in Computer Engineering — *Gandhinagar*

- Data Structure
- Database Management System
- C++
- Computer Organization
- Analysis and Design of Algorithms
- JAVA
- Computer Networks
- Web Technology
- Software Engineering
- .NET Technology
- Compiler Design
- Data Mining and Business Intelligence
- Artificial Intelligence
- Python Programming

Experience

Johannes Gutenberg-Universität Mainz **Mar 2024 - Jul 2025**

- **Key Skills:** Python, Machine Learning, Natural Language Processing, CNN,
  - I have developed an AI model using CNN that can predict heart disease from medical images.
  - I used Grad-CAM to make the decisions of the AI model more understandable and comprehensible.
  - I created heat maps to identify important image areas and make the model more reliable.
  - I have collaborated on research into ethical AI in medical diagnosis.
  - I have demonstrated experience with Python, machine learning, and computer vision.

Master Thesis

Technische Universität Chemnitz — Chemnitz, Germany **Aug 2024 - Feb 2025**
Vision Tracking based UAV Precision Landing

- I developed a landing system for drones using Python, OpenCV and ArUco markers.
- I implemented real-time 3D pose estimation and trajectory adjustments without GPS.
- I connected the MAVLink protocol to PixHawk to enable simple control and communication.
- Tests conducted in simulation and reality, with accuracy below one centimetre.
- Reliability and efficiency of drones improved through computer vision and sensor fusion.

Internship

Maxgen Technology — Ahmedabad,India **June 2019 - June 2020**
Machine Learning Intern

- Automatic attendance tracking with facial recognition developed using Python, machine learning and OpenCV.
- A precise solution designed to replace manual processes and improve efficiency.
- Recognition improved under different conditions thanks to modern machine learning technology.
- System made scalable and stable through testing and real-world trials.
- Innovative solution for human resources management developed using Python and computer vision.

Technische Universität Chemnitz — Chemnitz,Germany **Sep-2023 Feb-2024**
Python / Ml Intern

- Six-month research internship on object recognition for autonomous vehicles using YOLO.
- Developed and implemented real-time detection models for cars, bicycles and traffic lights.
- Models trained and optimised with Kaggle data on Google Colab – high efficiency achieved.
- Advanced deep learning techniques applied to improve recognition accuracy and reliability.
- Model performance validated through comprehensive testing to ensure robustness in various scenarios.

Project

Cultural Routes of Chemnitz Web App
Apr 2024 – Jun 2025

- Development of a complete web application with**HTML, CSS, JavaScript, Node.js, Express.js, MongoDB** for exploring and navigating cultural sites in Chemnitz.
- Integration of**Leaflet.js** and the **Overpass API** for dynamic display of maps and routes from your current location to selected destinations.
- Implementation of user registration, login/logout and personalised functions such as **Favoriten** and **besuchten Routen**, stored in MongoDB.
- Creation of an interactive dashboard with **Dash + Plotly** for visualising user preferences and route data.
- Application of user-centred design principles to improve usability for international users.

Technical skill

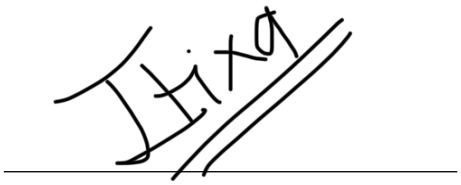
Languages: Python, SQL,ASP.NET Core / C, Erfahrung mit MongoDB oder anderen NoSQL-Datenbanken
Libraries and Framework: Numpy, Pandas, Sci-kit learn, Pymavlink, OpenCV, TensorFlow, PyTorch, JavaScript and React Framework
Machine Learning: YOLO,Grad-CAM
Deep Learning: ANN, CNN, RNN
Visualization: PowerBI, Matplotlib, Seaborn
Technologies & Tools:VS Code, Jupyter Notebook, Google Colab, Git, GitHub, MongoDB, Flask, Linux,Msoffice
Soft Skills: Problem solving, self-learning, presentation, adaptability.

Languages

English: Fluent
German: Intermediate(B1-Continue)

Certificates

- AIML Workshop on Building AI-Enabled Face Mask Detector
- Advance Analytics Certificate
- Analytics for Beginner Certificate
- C,C++
- X-IT QUIZ(2)
- MATH SURVIVORS



Itixa Talaviya