JAYDIP BORAD

AI Engineer specializing in Smart Sensors and Actuators

CONTACT

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Born on: 14/11/1999, Gujarat, India

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WORK EXPERIENCE

Working student as Test Engineer

HERRMANN AG, Pösing, Germany

06/2022 – Present

- Actively contributed to the development of robust and user-friendly web solutions.
- Specialized in safety-compliant schematic-based controller development, ensuring optimal performance through rigorous testing.
- Collaborated with cross-functional teams on innovative prototyping techniques.

Software Developer/ Data Analyst

Eagle Filtration, India

06/2021 – 02/2022

- Managed data processing for filter production, conducted statistical analyses, and developed software solutions.
- Implemented machine learning tasks focused on predictive maintenance using Java and MySQL.

Intern as a Web Designer

IT-HUB Software and Solutions, India

10/2020 – 04/2021

- Working on a project about implementing solutions for an e-commerce website's CRM system, focusing on database management and workflow automation.
- Acquired practical web design expertise through hands-on projects.

PROFILE

As an AI / ML Engineer, I have experience in NLP, sentiment analysis, ML predictive modeling, statistical predictive modeling, data processing using Python, Pandas, NumPy, SQL, Big Query in AWS.

Beyond my professional and academic experience, I have worked on my own portfolio projects: From designing and implementing ML algorithms to developing automation systems, I'm always eager to push the boundaries of what's possible with technology. I'm constantly seeking to learn and grow and excited to work on impactful projects that challenge me.

EDUCATION

M. Eng. AI for Smart Sensors and Actuators

Deggendorf Institute of Technology, Cham, Germany | 03/2022 – present

- Deep learning and Reinforcement learning
- Natural Language Processing
- Big Data, Computer Vision
- Algorithms of Autonomous Systems
- Final Grade: 2.0

B. Eng. Mechatronics Engineering

Gujarat Technological University, Gujarat, India | 06/2017 – 07/2021

- System Engineering
- Computer Programming
- Neural Networks
- Bachelor Thesis: Mono Electric Bike
- Final Grade: 2.0

PERSONAL PROJECTS

Abstract-Simplifier | 02/2022 – 03/2022

- Developed an NLP model using PubMed-20K-RCT datasets and Utilized Transfer Learning to simplify complex medical research abstracts.
- Engineered a novel model by combining character, token, and positional embeddings.
- Demonstrated by deploying the model using Streamlit.

Food-Vision | 02/2023 – 03/2023

- Enhanced a pre-trained Keras model by retraining it on the Food101 dataset, achieving 80% accuracy.
- Optimized training with EfficientNetB0 and mixed precision techniques.
- Deployed using Streamlit to gather user feedback for improvements.

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KNOWLEDGE AND SKILLS

TECHNICAL

NLP

Python programming (TensorFlow, PyTorch, Keras)

OpenCV, C/ C++, C#, Java, SQL, AWS

Git/ Github, Latex, Docker, Linux

Pandas, Numpy, Seaborn, Matplotlib, Scikit-learn

Tableau, MS Office

PROFESSIONAL

Analytical Thinking

Critical Problem Solving

Technical Writing

Documentation

Presentation Skills

Adaptability to New Technologies

LANGUAGES

English: Business Proficiency

German: Intermediate

Gujarati/ Hindi: Mother Tongue

CERTIFICATES

Generative AI with Large Language Models, Coursera, 2024
TensorFlow Developer, Coursera, 2023
AWS Cloud Practitioner, AWS, 2023
PyTorch for Deep Learning, Udemy, 2021
Python Developer, Udemy, 2020

INTERESTS

Programming
Cooking
Reading

RESEARCH EXPERIENCE

Robot Navigation and pick-place of an object with IntelRealsenseD435i, Case Study

Deggendorf Institute of Technology | 09/2022 – 09/2023

- Developed a robust ADAS navigation system with Raspberry Pi and Intel RealSense D435i Camera, improving navigation accuracy.
- Utilized Intel RealSense Camera and YOLOv3 for accurate object detection with a 90 percent precision score for ADAS navigation.

Autonomous Driving with Turtlebot3, Case Study

Deggendorf Institute of Technology | 09/2022 – 09/2023

- Led a project focusing on mapping the environment using a wall follower Turtlebot3 and recording wall intensities.
- Implemented reinforcement learning algorithms like A* and RRT* along with wall following algorithm to navigate to positions with specific intensities.
- Evaluated and compared the efficiency of both techniques in terms of Turtlebot3's ability to reach locations while avoiding obstacles.

DIT form reader, Case Study

Deggendorf Institute of Technology | 09/2022 – 09/2023

- Developed an OCR system capable of accurately reading and extracting information from both printed and scanned forms, including digital and handwritten text.
- Implemented machine learning-based handwriting recognition and transferred the extracted data into a database for easy retrieval.

ACCOMPLISHMENTS

Robocon Robotics Competition

Gujarat University | 09/2020 – 02/2021

Conference on crop protection from heavy rain

Gujarat University | 09/2020 – 02/2021

Volunteering

Bachppan NGO | 08/2017 – 01/2020

Cham, 16/04/2024