

# DEVASHREE SANJAY BHAVSAR

[bhavsard@oregonstate.edu](mailto:bhavsard@oregonstate.edu) | [linkedin.com/in/devashree-bhavsar-234489140/](https://linkedin.com/in/devashree-bhavsar-234489140/) | Willing to relocate

## EDUCATION

**Masters in Computer Science**, Oregon State University, USA, GPA: 3.77/4.00

**Graduation Date: Jun 2025**

Key courses - Algorithms, DBMS, Statistics for Data Analysis, R for Data, AI, ML, NLP with Deep Learning

Scholarship – Merit & Continuation (7500\$)

**Bachelors in Electronics and Tele-Communication**, VIIT, India, GPA- 7.43/10.00

**Aug 2016 – Mar 2020**

## WORK EXPERIENCE

**Data Scientist** | Tata Consultancy Service Ltd.

**May 2020 – Aug 2022**

- Partnered with a leading US-based car rental company to design and deploy scalable, cloud-based software solutions using AWS services, streamlining data pipelines and backend systems to enhance operational workflows.
- Built predictive models using ARIMA and LSTM in Python to forecast fleet demand, **achieving a 27% reduction in delays**.
- Automated scalable ETL pipelines using PySpark, ensuring data quality and governance while processing millions of daily transactions, significantly improving data throughput and supporting critical business analytics.
- Delivered Power BI dashboards integrating predictive analytics, transforming complex data into actionable insights, improving inventory management and enhancing customer satisfaction.

Skills: Apache Spark, SQL, S3, Lambda, Airflow, ETL Pipelines, Big Data Processing, Performance Optimization

**Lead Network Analyst** | Oregon State University

**Oct 2022 – Mar 2024**

- Analysed historical network performance data, identifying key areas for improvement that reduced downtime and enhanced system reliability for over 30,000 users.
- Executed 500+ access point, switch, and router upgrades, adding Layer 2 security enhancements to boost network reliability.
- Collaborated with cross-functional teams to design and implement strategic upgrades, optimizing performance through data-driven insights and reporting.

Skills: Network Security, Infrastructure Upgrades, Security Protocols, Bash, Linux, System Hardening, Data Governance

**Graduate Teaching Assistant** | Oregon State University

**Mar 2024 – Present**

- Mentored 15 student teams on end-to-end machine learning projects, focusing on API-driven ML solutions, feature engineering, model selection, and performance evaluation.
- Provided technical guidance in designing, developing, and deploying **full-stack ML applications**, ensuring seamless REST API integration and real-time inference pipelines.
- Built **API-enabled LLM solutions**, instructing students on **prompt engineering**, **few-shot learning**, and **OpenAI API & Hugging Face Transformers** for scalable AI deployments.

Skills: Python, GitHub, LLM Integration, CI/CD Pipelines, Typescript, REST, FastAPI, Flask, Project Management, Agile, JIRA

## PROJECTS

**Capstone - Integrated Marine Life Tracker** ([Link](#))

- Developed a scalable multi-object detection and tracking system for marine life monitoring in collaboration with National Geographic, utilizing YOLOv8 and ByteTrack to process **10,000+ annotated drone footage frames** captured at varying altitudes and water clarity levels, achieving a **96.88% detection precision**.
- Integrated Kalman Filters and occlusion-aware tracking mechanisms to enhance motion continuity, significantly improving object re-identification and tracking stability across challenging visibility conditions.

Skills: Pytorch, Computer Vision, Occlusion Management, Data Augmentation, Frame Interpolation, Feature Engineering

**Identifying and Mitigating biases in LLMs**

- Performed a comprehensive bias analysis on TinyLlama using SEAT and StereoSet, quantifying gender, race, and profession-based biases through statistical evaluation, incorporating BLEU and ROUGE scores for performance assessment.
- Leveraged transfer learning on the CNN/Daily Mail dataset, **enhancing summarization accuracy by 11%**, while integrating advanced debiasing techniques to improve fairness and mitigate bias in AI-generated text.

Skills: NLP, Ethical AI, Prompt Engineering, Model Tuning, Hyperparameter Optimization, Adversarial ML, Model Calibration

## TECHNICAL SKILLS

**Programming & Scripting:** Python, SQL, R, JavaScript, Bash, Linux, Cypher

**Machine Learning:** PyTorch, TensorFlow, Scikit-learn, pandas, numpy, matplotlib, Deep Learning, Transfer Learning, Predictive Modeling, Feature Engineering, Airflow, Statistical Analysis, Data Wrangling, Data Visualization, Data Augmentation, Power BI

**Cloud & DevOps:** S3, Lambda, EC2, Redshift, CI/CD Pipelines, Docker, Kubernetes, Serverless Computing

**Version Control & Collaboration:** Git, GitHub, JIRA, Agile Methodologies, CI/CD Pipelines, Docker