Naga Jyothirmayee Dodda

Software Engineer | ML / DL Engineer

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Education

Master of Computer Science - AI Specialized **Sept 2021 - Sept 2023**
University of Windsor, Canada

Technical Skills

- **Languages:** C#, Python, Vb, ASP.NET, ADO.NET, HTML5, CSS.
- **Databases:** MySQL, SQL, PostgreSQL.
- **Frameworks:** PyTorch, TensorFlow, Scikit-Learn, FlutterFlow.
- **Data Analysis:** Numpy, Pandas, Matplotlib, Seaborn, Power BI, Tableau.

Professional Experience

Research Assistant, University of Windsor, Canada **Feb 2022 - Jul 2022**

- Leveraged Python, TensorFlow, Keras, and Matplotlib to curate and maintain a dataset of **5,000** high-resolution images with diverse object shapes and sizes, ensuring optimal data for accurate model training.
- Achieved a **95%** annotation accuracy and enhanced detection performance by defining annotations in this dataset.
- Implemented state-of-the-art deep learning algorithms, including **YoloV5**, for precise object detection.
- Improved project collaboration efficiency by **80%** through reduced communication delays.

Software Engineer, Wipro Limited(Client: BP plc), India **Oct 2018 - Aug 2021**

- Utilized C#, VB.NET, ASP.NET, ADO.NET, HTML5, CSS, SQL, PostgreSQL, Power BI, and AWS (API, S3, CloudWatch) to contribute to software development at BP **Retail**.
- Delivery of automation scripts decreased maintenance time from **1 hour to 10 minutes** , increasing website availability and saving **2 hours of manual effort daily.**
- Streamlined CI/CD pipeline process, and expedited requirement closure by altering it, eliminating the need for extensive coding modifications and **saving 30 hours.** and **20 hours** of testing.
- Cut-down manual report creation time from **6 hours to 15 minutes** with automation scripts for report generation, enhancing accuracy and eliminating errors.
- Optimized data visualization and utility by creating and delivering ten compelling **Power BI** reports, resulting in a **15%** increase in data-driven insights adoption.
- Efficiently shared **10%** of lead's workload by engaging with external teams and participating in all phases of the **SDLC** for some requirements.

Academic Research - Many-to-one (M2O): Industrial Anomaly Detection & Localization

Thesis, University of Windsor, Canada **Accepted, To be Presented at ICMLA '23**

- Employed **PyTorch, Matplotlib, Scikit-Learn** and developed an efficient transformer-based anomaly detection Model, achieving **96.81%** AUROC on MVTec AD dataset, and reduced Type 1 error count.
- Innovated the Multi-Level Feature Fuse module, cutting model size by **30%** and speeding up inference by **8.79%**.
- Addressed imbalanced datasets to ensure model robustness in real-world scenarios.
- Published the **ECAD dataset**, aiding industrial anomaly detection research, surpassing baseline with **30.93%** parameter reduction and **10.1% faster inference**.

Activities and Volunteer Engagement

- Mentored students at ISC, University of Windsor.
- Volunteered at CKI, University of Windsor.
- Volunteered in Google Developer Fest 2022.
- Elected as Vector Institute's representative (2021-2022).