Girish Pawar
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SKILLS & CERTIFICATIONS

Tools: Power BI, MATLAB, TensorFlow, NumPy, Pandas, Git, Jira, Docker.
Technologies & Languages: Python, C++, Nodejs, HTML, CSS, JS, ReactJS, AWS, SQL, MongoDB, PostgreSQL, LLM, OpenCV, Deep learning, Machine learning and Data science, TensorFlow, CUDA, Jetson Orion.
Certifications: Introduction to python - Microsoft, NVIDIA – Building Video AI Applications at Edge on Jetson Nano, Google – Introduction to Generative AI, Standford - Supervised Machine Learning: Regression and Classification.

EDUCATION

University of Adelaide | Adelaide, Australia **Feb 2025 – Present**
Masters of Artificial Intelligence and Machine Learning | Perusing

Vivekanand Education Society's Institute of Technology, VESIT | Mumbai, India **Aug 2017 - July 2021**
Bachelor of Technology| Electronics Engineering| CGPA 7.90/10
Winner of Best Project Award 2021

WORK EXPERIENCE

Lead Research & Development Engineer | KVAR Technologies Pvt. Ltd. | Mumbai, India **Jun 2021 – Jan 2025**
Software and IoT Systems Development

- Engineered and deployed custom IoT solutions for clients such as TATA, Nevco, Adani, Yokohama and BIRLA, improving system automation and reducing manual intervention by 60%.
- Strengthened compliance by implementing automated testing frameworks for information security controls in change management, incident handling, and user access.
- Led infrastructure audit and optimization, identifying unused services and storage inefficiencies, resulting in an estimated annual savings of ₹12L in operational overhead per IoT device.

Custom Software Development

- Created a custom ticket issue management software for internal use, utilizing Node.js, JavaScript, and PostgreSQL to streamline workflow and issue resolution, reducing issue resolution time by 55% and streamlining internal support workflows.
- Developed Kiosk Token Display Management software, enhancing queue management and customer experience.
- Designed and delivered Production Genie, a manufacturing analytics tool to monitor OEE and operational efficiency across multiple levels (company, plant, supervisor, operator).
    - Integrated with Tableau, Power BI, and Qlik Sense for dashboard creation.
    - Resulted in a 70% increase in operational transparency and 30% reduction in production downtime
    - Earned a professional qualification in Qlik Sense dashboard development.

Machine Learning and Computer Vision Applications

- Created Bag Counting software for Gujarat Fertilizers, leveraging Machine Learning and Jetson Orin. Utilized MobileNet SSD v2, trained on a custom dataset with a loss of 0.58 for 500 epoch and an accuracy of 98.91%. Designed a custom centroid tracking algorithm for precise object tracking.
- Engineered a Bottle Counter system to detect and classify bottles based on shape, size, and color. Implemented object detection using YOLOv3, with a custom-trained model achieving 99.3% accuracy for 700 epoch and loss of 0.63. ensuring identification of correct bottles in production lines.

Freelancer | AGS Carbon Pvt. Ltd. | Mumbai, India **Jan 2023 – May 2024**
Cloud-Based Emissions Monitoring Platform (AGS CLOUD)

- Designed and built a cloud-native analytics platform using Node.js, EJS, and MongoDB to process data from 9950+ IoT devices in real time.
- Integrated a computation engine to perform statistical calculations (Mean, STD, Raw Data) on carbon emission datasets generated by CFL vs LED usage.
- Automated data collection and processing reduced manual reporting efforts by 90%, and enabled monthly carbon reduction reporting to regulatory bodies.

ACADEMIC PROJECTS

Investigation of Material Deformation using Digital Image Correlation | MATLAB | Mumbai, India **Nov 2022 - April 2023**

- Awarded Best Project 2021 –VESIT.
- Implemented Digital Image Correlation (DIC), an optical technique for non-contact, 2D deformation measurement in structural elements.
- Utilized high-resolution CMOS cameras to capture high-contrast speckle patterns for precise deformation analysis.
- Integrated visualization features, including magnitude and direction representation using arrow indicators.
- Developed a user-friendly GUI to facilitate easy navigation and bulk export of strain analysis results.
- Applied statistical methods, including Pearson's Correlation and Spearman's Rank Correlation, for data validation and analysis.