

Raj Gandhi

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EXPERIENCE

Eicon Vision

Apr 2025 – Present

Sr. Software Engineer, 3D Computer Vision

Chennai, India

- Built a scalable image retrieval system for artworks and artifacts, indexing over 1.5 million images.
- Engineered image analysis pipelines for art authentication and 3D artifact reconstruction.
- Developed high-fidelity 3D model workflows using photogrammetry and point-cloud processing tools.
- Created interactive Three.js-based web modules for real-time 3D model viewing and annotation.
- Prepared a mock up to showcase Augmented Reality (AR/VR) application of art placement in galleries.

Upwork

Mar 2025 – Apr 2025

3D Processing Consultant

Remote

- Delivered a Blender add-on for automated mesh cleanup, texture mapping, and photogrammetry prep.
- Reduced manual **processing time by 60%** with a GUI-based batch processing system that helped in automating the computer graphics workflow.

IndicVision Pvt Ltd (formerly PhotoGAUGE India)

Jul 2021 – Feb 2025

Software Engineer

Chennai, India

- Architected a wound monitoring application and website to help patients get treated remotely. **Handled high volume 3 GB video input and high-memory 2 GB model data from each user.**
- Designed and maintained 3D photogrammetry pipelines improving scan **success rates from 50% to 90%.**
- Trained ML models and used computer vision algorithms for object detection, defect segmentation, and weight estimation.
- Automated 3D measurement workflows and connected CI/CD pipelines, **increasing throughput by 40%.**
- Designed a browser based 3D model handler and integrated it into production systems.
- Programmed a remote measuring system for one of the clients resulting in annual savings of 1.3 million dollars annually.

Goodrich Gasket Pvt. Ltd.

Jul 2020 – Jun 2021

Engineer, New Product Development

Chennai, India

- Performed R&D for new product lines and ERP/HRMS system implementations across production units.
- Implemented cost-saving changes to manufacturing line saving Rs 50 Lakhs annually.
- Led the ERP migration effort from SAP to SAGE ERP and HRMS application systems.
- Streamlined manufacturing process workflow.

Wheels India Ltd.

May 2019 – Jun 2020

Graduate Engineer Trainee

Chennai, India

- Managed supply chain operations and introduced inventory workflow improvements.
- Made detailed costing reports for production parts manufactured in-house.
- Tracked and implemented various cost-saving manufacturing processes across units in the company that helped the company achieve an accumulated savings of INR 6.3 million that year.

SKILLS

Languages: Python, JavaScript (Three.js, React), C++, Bash

Frameworks & Libraries: OpenCV, PCL, TensorFlow, PyTorch, Three.js, Blender Python API, FastAPI, CUDA

Tools: Metashape, Docker, Git, AWS, Azure, CI/CD, JIRA, SolidWorks, NX CAD, Blender, CloudCompare

Domain Interests: 3D Computer Vision, Photogrammetry, 3D Web Applications, Pipeline Automation

PROJECTS

3D Wound Care Application | Three.js, Python, Node.js, Flutter, FastAPI, PyTorch, Metashape, RC

- Developed a cross-platform application for 3D wound analysis and measurement.
- Created web-based 3D viewers using Three.js and integrated 3D processing workflows for automated wound size estimation and visualization.

Blender Photogrammetry Plugin | Python, Blender API, Pytorch, SAM

- Automated point-cloud preprocessing, mesh decimation, and texture projections for 3D models.

3D Processing Automation Pipeline | Python, OpenCV, Metashape, Pytorch, Node.js

- Devised an end-to-end industrial 3D scan processing system with REST API integrations.

EDUCATION

SRM Institute of Science and Technology, Chennai
B.Tech in Mechanical Engineering

Jul 2015 – May 2019
GPA – **8.15/10**