

MUHIL PRADHANJI

SUMMARY

A passionate Computer Science Engineer with expertise in C++/C# software development, specializing in high-performance applications, image processing, visualization, and real-time system design. Experienced in developing industrial solutions using OpenCV, VTK, Qt, OpenGL, CUDA (C++), and WPF, HelixToolkit, Entity Framework (C#) with deep learning integration through TensorFlow APIs.

TECHNICAL & WORK EXPERIENCE

DHVANI RESEARCH AND DEVELOPMENT SOLUTIONS

May 2024 - Present

1. Radiographic Testing (RT) ADR Software

- Automated Defect Recognition (ADR) Software
- Developed an ADR system for radiographic image analysis using C++.
- Built image preprocessing and enhancement algorithms with OpenCV for high-performance data processing.
- Designed a Qt Framework GUI and integrated VTK for advanced 2D/3D visualization.
- Integrated deep learning inference with TensorFlow C++ API, enabling real-time defect detection and classification.
- Delivered deployment, configuration, user training, and on-site support.
- Ensured system reliability through debugging, optimization, and stability improvements for industrial standards

2. PAUT (Phased Array Ultrasonic) Software

- Developed a high-performance PAUT application in C# for industrial workflows.
- Implemented sectorial scan plotting and B-scan visualization algorithms using WPF/HelixToolkit (C# equivalents of OpenGL/VTK).
- Integrated ADR modules with TensorFlow.NET for real-time flaw detection in ultrasonic B-scan images.
- Built secure user authentication and session management using Entity Framework with SQL Server/SQLite.
- Optimized visualization pipelines and data processing to handle large-scale ultrasonic datasets with high speed and memory efficiency.

3. Technical Tools & Skills:

- Software: ADR, PAUT
- Tools: Visual Studio Code, Visual Studio, Jupyter Notebook, Git, Databases
- Libraries & Packages: OpenCV, CUDA (NVIDIA), VTK, Qt, TensorFlow C++ API, OpenGL, SQL
- Domain: Industrial Technology

CERTIFICATIONS:

- Mule Soft Certified Developer - Level 1(Mule 4) Year of Certification:2024.
- JAVA Certified Developer Year of Certification :2024.
- MYSQL Certified Year of Certification:2024.

ADDITIONAL INFORMATION

- Good Experience in Anypoint platform for mulesoft application development.
- Experience in Restful API Development using RAML.
- Hands on experience in web service(REST) and above mentioned tools
- Have worked on scheduler driven APIs which uses SFTP.
- Have worked on File connectors, Database connector, REST connector, java connectors.
- Workshops** :Explored neural network-based face recognition for virtual currency (VIT Vellore) and completed Red Hat & Machine Learning workshops (AAA College, NIT Chennai).
- Internships / In-Plant Training** : Completed Java and AWS internships, along with Red Hat training, at AAA College of Engineering and Technology

EDUCATION

Bachelor of Computer Science and Engineering

2019 - 2023

- AAA College of Engineering & Technology, Sivakasi – 8.01 CGPA

CONTACT

- MAIL ID**-muhilprathanji225@gmail.com
 - PHONE NO**-9994811881
-