# Harini A.J.

Bengaluru, IN-KA | 9916296662 | harini.aj@gmail.com

## Aspiring Data Scientist | Senior Software Engineer transitioning to Machine Learning & AI

Aspiring Data Scientist with 10+ years of software engineering experience and completing M.Tech in Data Science & Machine Learning from PES University. Proficient in Python, SQL, EDA, and ML/DL frameworks including Scikit-learn, TensorFlow, and Transformers. Strong foundation in data wrangling, statistical modeling, and predictive analytics. Experienced in integrating machine learning models into production-grade software with scalable frontend/backend architectures. Passionate about solving real-world problems through AI/ML.

## Core Skills

Data Science & Machine Learning:

* Python (Pandas, NumPy, Scikit-learn, TensorFlow, Transformers)
* SQL (MySQL, Kusto)
* EDA, Data Wrangling, Feature Engineering
* Machine Learning, Deep Learning (CNNs, RNNs)
* NLP, Time Series Forecasting
* Visualization (Matplotlib, Seaborn, Power BI, Tableau)
* Model Deployment (basic understanding)

Software Engineering:

* JavaScript, TypeScript, React, Redux
* C#, .NET, Electron, WPF, Xamarin
* TDD with Jest, Frontend System Design

## Experience

Software Engineer II | Microsoft | Dec 2023 – March 2025

* Collaborated with product and UX teams to improve user metrics (CSAT +8%) via data-driven feature enhancements.
* Built and monitored high-performance frontend and backend modules using React and C#.
* Owned global system reliability using data instrumentation and real-time monitoring tools (OKRs, telemetry, Kusto).
* Contributed to predictive modeling of customer satisfaction and feature usage trends (ongoing side project).
* Gained hands-on experience in ETL, pipeline design (ADO), and integration of analytics into product dashboards.

Technical Lead | Oracle India Private Limited | Mar 2020 – Dec 2023

* Led a dev team of 9 to deliver scalable enterprise features for Oracle Marketing Cloud.
* Built reusable React components and implemented complex UIs like nested grids and drill-down dashboards.
* Mentored 4 new hires, improving team velocity by 20%.
* Setup Jest unit tests with 70–80% test coverage.

Senior Software Developer | Oracle India Private Limited | May 2015 – Mar 2021

* Delivered reusable UI components and integrated CKEditor, reducing 80% of development effort.
* Released SMS DLT support under strict deadlines with zero customer impact.
* Implemented CSRF token security across the Oracle Responsys Suite.

Assistant Consultant | Tata Consultancy Services | May 2014 – May 2015

* Refactored JavaScript application, improving setup time from 1 hour to 20 minutes.

## Projects & Research

**Multimodal LLM for Automated Medical Report Generation**

* **Capstone Project, PES University | Python, PyTorch, ViT, BERT, GPT**
* Developed an end-to-end multimodal system combining Vision Transformer (ViT) and BERT for generating structured medical reports from diagnostic images and clinical metadata.
* Designed and implemented a fusion architecture that aligns visual and textual embeddings in a shared latent space to enable contextualized language generation using a GPT-style decoder.
* Fine-tuned the model on large-scale medical datasets (e.g., MIMIC-CXR, FIVES) and evaluated performance using BLEU, ROUGE, and METEOR metrics.
* Achieved clinically coherent outputs suitable for radiological review, demonstrating practical potential for real-world diagnostic support.

## Education

M.Tech: Data Science and Machine Learning | PES University | Expected 2026

B.E: Information Science | VTU, AMC Engineering College | 2004