

SUMMARY

AI Engineer and Full-Stack Developer with a background in Data Science, focused on building scalable, real-world intelligent systems. Experienced in designing and deploying end-to-end AI solutions, including machine learning models, APIs, and interactive dashboards. Skilled in optimizing model performance, enabling efficient inference, and delivering production-ready applications with measurable impact.

EDUCATION

B.Sc Data Science (2023 – 2026)
 Bon Secours College for Women (Autonomous), Bharathidasan University
 Core focus: Data analysis · Statistics · Programming

Full Stack Development (2024 – Present)
 NxtWave
 Practical training in building scalable, end-to-end web applications

Higher Secondary (12th Standard)
 AI-Mubeen Matriculation Higher Secondary School , Score: 80.17%

PROJECTS

CHRONO: Agentic Longitudinal Blood Intelligence | April 2026
AI & Full Stack Developer [github link](#)
 Designed and developed an agentic blood intelligence system using Gemma 4 E4B vision models to enable on-device biomarker extraction, eliminating cloud dependency. Engineered a fine-tuned Gemma 4 26B ReAct reasoning agent to detect metabolic drift with high precision.

IncidentMind: Ambiguity-Aware RL Environment | Mar 2026 [github link](#)
AI developer
 Constructed an OpenEnv-compliant Reinforcement Learning environment to train AI agents in diagnosing ambiguous production incidents. Designed a confidence-gated architecture and dense reward function, training models to balance clarification budgets against blast radius penalties.

OPTI-FAB: Edge-AI Defect Classification | Dec 2025 [github link](#)
Edge AI Developer
 Developed a stream-aware inference pipeline for semiconductor defect detection. Optimized a MobileNetV2 model using NVIDIA TensorRT (FP16) and a confidence-gated early exit architecture to reduce end-to-end latency by 63.9% while maintaining 90% classification accuracy.

Crop Yield Prediction System | Feb 2026
Machine Learning Developer [github link](#)
 Built a machine learning system to forecast agricultural productivity using climate and soil NPK data. Engineered the preprocessing pipeline and optimized a Random Forest Regressor via GridSearchCV, achieving an R² score of 0.8026 to extract actionable agronomic insights.

TECHNICAL SKILLS

- Programming Languages:** Python, SQL, JavaScript
- AI & Machine Learning:** Agentic Workflows (ReAct), LLM Fine-Tuning (Gemma 4), Edge Vision (TensorRT), Reinforcement Learning
- Data Science :** Pandas, NumPy, Statistical Analysis, Power BI, Data Visualization, Big Data
- Backend & Architecture :** FastAPI, PostgreSQL, RESTful APIs, Docker, Hugging Face Spaces
- Web Development (Full Stack) :** HTML, CSS, Bootstrap, JavaScript, Responsive Web Design

WORK EXPERIENCE

Data Science Analyst Intern | Scion Research and Development -1 Month

- Analyzed 50K+ records using Python (Pandas) to extract actionable insights
- Performed exploratory data analysis (EDA) and built visualizations to identify key trends
- Developed and evaluated machine learning models for predictive analysis
- Created structured reports and dashboards to support data-driven decision-making

STRENGTHS

- Problem Solving · Technical Communication · Team Collaboration · Ownership

LEADERSHIP & ACTIVITIES

- Technical Lead / Team Lead** – Led 6+ hackathon teams, managing system design and delivery
- Master of Ceremonies** – Hosted technical & cultural events with strong public communication