

NISHAL A T

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PROFESSIONAL SUMMARY

Computer Science undergraduate with hands-on experience in Machine Learning, foundational Deep Learning, and systems-aware programming. Strong grounding in data structures, algorithmic thinking, and performance considerations across memory hierarchies. Proven ability to build end-to-end ML systems, iterate using measurable outcomes, and approach engineering problems with ownership and scalability in mind. Aspiring Software Engineer / AI Engineer targeting high-impact global technology teams.

EDUCATION

- ➔ B.E. Computer Science and Engineering
Bannari Amman Institute of Technology | 2024 – 2028 | CGPA:8.0
- ➔ Class XII
Board of Secondary Education, Tamil Nadu | 2023-2024 | 85.3%
- ➔ Class X
Board of Secondary Education, Tamil Nadu | 2021-2022 | 94%

TECHNICAL SKILLS

- ➔ Programming Languages: Python (proficient), C (working), Java & C++ (learning for DSA & systems)
- ➔ Data Structures & Algorithms: Arrays, Strings, Stacks, Queues, Hash Tables (basic), Trees (intro), complexity analysis, 200+ solved problems on LeetCode
- ➔ Machine Learning & Deep Learning: Regression, Classification, Convolutional Neural Networks (CNNs), Model Evaluation, Accuracy Optimization
- ➔ Libraries & Tools: NumPy, Pandas, Matplotlib, Scikit-learn, TensorFlow/Keras (basic)
- ➔ Systems Awareness: Memory hierarchy, Cache locality, Contiguous memory access, Pointer optimization, Producer-consumer concepts
- ➔ Databases & Platforms: SQL fundamentals, Basic NoSQL exposure, Git, GitHub, Linux (basic), VS Code
- ➔ AI Productivity Tools: ChatGPT, Cursor, Comet for learning, debugging, and iteration

ENGINEERING PROJECTS

- ➔ CNN-Based Image Recognition System(Technologies: Python, TensorFlow/Keras)
- ➔ Machine Learning Prediction System(Technologies: Python, Scikit-learn)
- ➔ Deep Learning Classification Model(Technologies: Python, TensorFlow/Keras)
- ➔ Sensor-Based Sewage & Stormwater Management System (IoT Prototype).

PROBLEM SOLVING & DSA

- ➔ Solved 200+ aptitude and algorithmic problems across logical reasoning and core DSA topics.
- ➔ Active LeetCode practitioner focusing on arrays, strings, and foundational problem patterns.
- ➔ Emphasis on writing clean, readable, and maintainable code.

CERTIFICATIONS & TRAINING

- ➔ Machine Learning training with hands-on project work
- ➔ Basic Deep Learning training with hands-on project work
- ➔ Introductory exposure to IBM Cloud and Microsoft Azure platforms
- ➔ Actively preparing for advanced certifications aligned with cloud and software engineering roles

RESEARCH & TECHNICAL INTERESTS

- ➔ Algorithmic efficiency, systems-level performance analysis, and applied AI.
- ➔ Exploring opportunities to collaborate with faculty on research-driven projects combining ML and systems thinking.
- ➔ Long-term goal includes contributing to scalable, production-grade AI systems.

KEY STRENGTHS

- ➔ Strong foundation in core CS concepts
- ➔ Project-driven learning with measurable outcomes
- ➔ High self-awareness of gaps and disciplined improvement mindset
- ➔ Comfortable learning complex systems incrementally
- ➔ Ownership-oriented engineering approach

AREAS IN PROGRESS

- ➔ Advanced DSA and competitive problem-solving depth
- ➔ System design fundamentals for large-scale services
- ➔ Distributed systems concepts (scalability, availability, APIs)
- ➔ Leadership and team-based engineering experience
- ➔ Simulation-to-real-world performance validation

CAREER INTENT

- ➔ Target Roles: Software Engineer, AI Engineer, Applied Machine Learning Engineer
- ➔ Long-Term Goal: Build scalable, reliable, and high-impact systems at global technology companies such as Amazon, Google.