

AMIRTHA E

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 leetcode/amrthes2401
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 Amrthes

A Computer Engineering student with foundational experience in software development, passionate about collaborating with cross-functional teams to design and implement efficient, innovative solutions to real-world software engineering challenges.

EDUCATION

BE Computer Science and Engineering Bannari Amman Institute Of Technology
Sathyamangalam.
8.3 CGPA
[Pursuing] 2024-2028

SKILLS & PROFICIENCIES

Programming Languages

- C – Intermediate (procedural programming, pointers, memory basics)
- C++ – Intermediate (OOP concepts, STL, basic data structures)
- Python – Intermediate (API development, AI workflows, scripting)
- Java – Beginner (syntax, OOP fundamentals)
- JavaScript – Intermediate (DOM manipulation, async basics)

Full Stack Development

- Frontend:
HTML, CSS, JavaScript – Intermediate (responsive layouts, form handling)
React.js – Beginner to Intermediate (components, hooks, API integration)
- Backend:
Flask – Intermediate (REST APIs, routing, request handling)

FastAPI – Intermediate (async APIs, dependency injection, state handling)
Node.js – Beginner (basic API creation)

- Database:
MySQL – Intermediate (CRUD operations, joins, basic optimization)

Artificial Intelligence Skills

- Machine Learning – Beginner to Intermediate
(Supervised & Unsupervised learning, model evaluation)
- Natural Language Processing (NLP) – Intermediate
(tokenization, embeddings, intent classification)
- Large Language Models (LLMs) – Intermediate
(prompt engineering, context handling, response grounding)
- Retrieval-Augmented Generation (RAG) – Intermediate
(vector search, chunking strategies, hallucination reduction)
- Model Evaluation & Optimization – Beginner
(accuracy, latency measurement, iterative improvement)

DREAM COMPANIES

Google, Microsoft, Amazon, Swiggy, Juspay, Meta

TARGET ROLES

- SDE - I
- Research and Development
- AI/ ML Engineer

EXPECTED PACKAGE

- Internship: ₹35,000 – ₹80,000 per month
- Full-Time (Fresher): ₹18 – ₹30 LPA (CTC)
- Long-Term Target: ₹35+ LPA (Product-based companies)

PRIMARY MASTER DOMAIN

Artificial Intelligence & Full Stack Development

Core Expertise:

Strong foundation in Artificial Intelligence, Machine Learning, NLP, and Large Language Models, with specialization in building accurate and scalable systems using Retrieval-Augmented Generation (RAG).

AI Systems & Model Engineering:

Experienced in developing AI chatbots and voicebots with conversational memory, intent handling, hallucination control, and LLM integration with vector databases for semantic search and knowledge-grounded responses.

Full Stack & Backend Development:

Proficient in building end-to-end applications using React.js, FastAPI, and PostgreSQL, including RESTful APIs, authentication, role-based access control, and optimized backend workflows.

Project Implementation & Problem Solving

Delivered real-world projects such as AI voicebots and banking assistants, demonstrating strong analytical skills, system optimization, and the ability to convert complex problem statements into scalable solutions.

Innovation, Research & Intellectual Property

Actively involved in applied AI research focused on solving real-world academic and institutional challenges through innovative system design. Experienced in developing intelligent, scalable solutions using Multi-Agent RAG architectures, conversational memory, and hallucination mitigation techniques in LLM-based systems. Demonstrates strong awareness of intellectual property principles, ethical AI practices, and research originality, with the ability to translate theoretical concepts into practical, deployable solutions through continuous experimentation and learning.

External Validation & Competitive Dominance

Competitive Coding (LeetCode)

Solved **110+ algorithmic problems** across Easy, Medium, and Hard levels, demonstrating strong fundamentals in data structures, algorithms, and problem-solving. Active participation in contests with consistent practice and year-long submission streak, reflecting discipline and continuous improvement in coding proficiency.

Open-Source & Project Portfolio (GitHub)

Maintained an active GitHub profile with **20+ public repositories**, showcasing hands-on work in Artificial Intelligence, Machine Learning, Data Analysis, and Full Stack development. Projects include AI voicebots, loan approval systems, classification models, exploratory data analysis,

and end-to-end notebooks, demonstrating practical implementation, code consistency, and real-world applicability.

Global Certifications

- Microsoft Azure Fundamentals – Validated understanding of cloud concepts, services, security, and deployment models.
- Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate – Demonstrated foundational expertise in Artificial Intelligence, Machine Learning concepts, and AI services on OCI. (Issued: May 2025 | Valid until: May 2027)
- Oracle Cloud Infrastructure 2025 Certified Foundations Associate – Certified knowledge of cloud infrastructure, networking, storage, and core OCI services. (Issued: May 2025 | Valid until: May 2027)

Hackathons & Achievements

- IEEE YESIST12 2025 – Finalist (Malaysia): Selected among top teams globally for innovative problem-solving and technical excellence in an international IEEE competition.
- LUDOHACK 2025 – 2nd Runner-Up: Recognized for developing a high-impact solution under competitive, time-bound conditions, demonstrating strong teamwork and execution skills.
- AtomBerg 2025 – Semi-Finalist: Advanced through multiple evaluation rounds by showcasing innovation, technical depth, and practical feasibility of the proposed solution.

Business, Leadership & Social Impact

Business & Product Mindset

Applied a solution-oriented approach to design AI-driven systems that address real-world institutional and user-centric challenges, focusing on efficiency, scalability, and measurable impact.

Leadership & Team Collaboration

Demonstrated leadership in team-based projects and hackathons by taking ownership of technical components, supporting peers, and contributing to architectural and implementation decisions.

Social & Educational Impact

Contributed to technology solutions aimed at improving communication, accessibility, and feedback mechanisms within academic and institutional environments, creating positive and sustainable social outcomes.

Self-Correction, Professional Communication

Applies continuous self-evaluation to strengthen core skills in Data Structures & Algorithms, Artificial Intelligence, Machine Learning, NLP, and Full Stack Development. Designs solutions with attention to usability, accessibility, and ethical considerations, reflecting a user-centric and responsible engineering approach.

Skill-Focused Career Direction

Strategically focused on industry-oriented skill development rather than exam-based preparation, strengthening proficiency in C, C++, Python, Java, JavaScript, and modern development stacks including React.js, FastAPI, PostgreSQL, and AI frameworks.

Professional Communication Development

Capable of clearly explaining system architecture, RAG pipelines, AI workflows, and backend logic through written documentation, presentations, and peer discussions. Actively improving structured technical articulation through demos, reviews, and project walkthroughs.

Structured Technical Growth Roadmap

Following a time-bound plan to deepen programming and problem-solving expertise:

- C, Java, Python, C++ – progressive mastery
- Data Structures & Algorithms – focused practice and optimization
- LeetCode – consistent problem-solving with measurable progress
- AI Systems – LLMs, RAG, model evaluation, and deployment

Proof-of-Work & Portfolio Strengthening

Building verifiable proof of work through end-to-end AI and full stack projects, public GitHub repositories, competitive problem-solving records, and real-world applications such as AI voicebots, loan approval systems, and classification models.