GAUTAM SINGH JYALA

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PUBLICATION

Gautam Singh Jyala, Rahul Chauhan, Ruchira Rawat, (2024), *"An Imitation of Humanoid Robot: A Qualitative Analysis"* in Challenges in Information, Communication, and Computing Technology, 1st Edition, CRC Press.   [Link](#)

EDUCATION

Graphic Era Hill University B.Tech in Computer Science - *8.15 CGPA*   *2022 - 2026*

PROJECTS

Banana Life Span Prediction   [GitHub](#)

- Built a MobileNetV2-based deep learning model with **90%+ accuracy** on banana ripeness prediction across **500+ labeled images**.
- Deployed model with a custom function to map quality score to eatable lifespan in days for smart kitchen use cases.
- Reduced image prediction time to **<1s** using TensorFlow optimization techniques.
- Enabled real-world integration by packaging model for edge deployment in IoT-enabled storage systems.

Hospital Management System   [GitHub](#)

- Developed a full-stack web app for managing **50+ daily hospital operations**, including patient CRUD and doctor records.
- Designed responsive UI with HTML/CSS/JS; improved patient data access by **40%** using real-time search/filter features.
- Implemented security measures for encrypted form data and validated access control logic.
- Modularized front-end/backend logic, improving system scalability and maintainability.

A Lightweight Bytecode Interpreter   [GitHub](#)

- Engineered a bytecode interpreter in C++ supporting arithmetic and print instructions with **<1MB memory usage**.
- Implemented lexer, parser, and bytecode generator for translating custom syntax into stack-executable code.
- Optimized execution flow to achieve **2x speedup** over naïve interpreters through efficient memory and stack usage.
- Added error handling for malformed inputs and runtime faults, improving interpreter reliability and usability.

TECHNICAL SKILLS

- **Languages:** C, C++, Java, Python, JavaScript, HTML, CSS, SQL
- **Libraries:** Numpy, Pandas, Matplolib, SKlearn, Seaborn
- **Database:** MySQL
- **Coursework:** OOPS, DBMS, Data Structures & Algorithms

ACHIEVEMENTS

- Played Nationals in Volleyball (2021).
- Solved **350+ DSA problems** on Leetcode and GFG.
- Awarded Leetcode Annual Badge 2023 for being in **top 0.4% globally**.
- Earned 100 and 200 Days Leetcode Streak Badges in 2024 and 2025.