AYESHKANT RAY
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Leetcode

EDUCATION

- **Vellore Institute of Technology** Sept 2022 - Present
  B. Tech CSE (Core) | CGPA: 8.47

SKILLS

- **Programming Languages:** Python, Java, C, C++, JavaScript, HTML, CSS
- **Technologies & Frameworks:** MySQL, Database Management Systems (DBMS)
- **Tools:** Git, GitHub, Visual Studio Code, Eclipse, MATLAB, MS Excel, Canva
- **Core Competencies**: Data Structures & Algorithms, Object-Oriented Programming (OOP), Relational Database Design

EXPERIENCE

Tonbo Imaging (Software Intern) *(Nov, 2024 – Jan, 2025)*

- Conducted a comprehensive analysis of kernel modules and images to identify dependencies and bottlenecks, leading to the strategic deactivation of non-essential components to significantly decreasing boot time from **35 seconds to 28 seconds** and enhance system performance.
- Contributed to the **"Kernel Optimization for Faster Boot & Power Efficiency"** project, focusing on reducing system startup time and improving overall energy management.

PROJECTS

Library Management System *(May, 2023)*

- **Technologies:** Python, MySQL
- Engineered a robust, command-line based Library Management System with a user-friendly menu offering 7 distinct functions for book and user management.
- Integrated a MySQL backend to manage data across 4 distinct tables and implement full CRUD (Create, Read, Update, Delete) operations using Python's mysql.connector.
- Developed core search functionality that allows users to find books by 3 different criteria (title, author, genre).
- Implemented a user-activity tracker that enforces a borrowing limit of up to 3 books per user, streamlining the borrowing and return process.
- Strengthened understanding of relational database design, normalization, and SQL query optimization through hands-on implementation.

RESEARCH PAPER

Numerical and computational analysis on population control-

- **Developed and tested 5 innovative** population growth models incorporating diverse factors, improving the accuracy of predictions by 25%; findings were integral to the theoretical framework and cited by industry practitioners.
- **Authored detailed content for the research paper**, translating intricate computational analyses and findings into clear, accessible insights for both technical experts and general readers.
- **Teamed up with 5 members** to use machine learning and GPT in Python for simulating population trends and deriving impactful insights on control strategies.

EXTRA-CURRICULARS AND ACHIEVEMENTS

ACHIEVEMENTS

- **100 Days of Code Challenge:** Completed a focused challenge centered on C++ and Data Structures & Algorithms, solving over 150 coding problems to significantly strengthen algorithmic thinking and core programming skills.
- **Co-authored and hold a government-registered copyright** for "Cool Veil," a smart thermoelectric cooling jacket. Collaborated with a multi-member engineering team to develop the product, which was recognized for hardware innovation and practical application in wearable technology.
- **DSW Office Member:** Served as a core member of the DSW Office at VIT Bhopal University (Dec 2022 – Aug 2025), including a role as Managing Editor for the monthly newsletter (April 2023 - June 2023).
- **Event Organizer:** Organized and managed a major technical and non-technical event for the EV Club at VIT Bhopal University, demonstrating strong coordination and leadership skills.

Certifications

VIT Bhopal University - Student ECA Coordinator	**Dec 2022 – Aug 2025**
Amazon Web Services - Introduction to Machine Learning on AWS	**June 2023**
Johns Hopkins University - A Crash Course in Data Science	**June 2023**
TheCyberDelta – Certificate of Participation	**Jan 2023**
Skill-Lync – Introduction to Programming Using Block-Based Languages	**Dec 2022**
Skill-Lync – Full Stack web developer	**Dec 2022**