

# PRADYUN DEVARAKONDA

@ Devarakonda.Pradyun@iiitb.ac.in    +91 8333071628    Hyderabad ,India  
🔗 <https://pradyunuydarp.github.io/Pradyunuydarp>    in Pradyun Devarakonda    🔄 Pradyunuydarp

## EDUCATION

iMTech (BTech + MTech) in Computer Science and Engineering  
**International Institute of Information Technology, Bangalore**

📅 October 2022 – July 2027    📍 Bengaluru, India

- CGPA: 3.67/4.0 (as of 5 semesters)

## EXPERIENCE

Summer Research Project Intern  
**iiitb**

📅 June 2024 – August 2024    📍 Bengaluru, India

- This internship gave me exposure to theoretical research in algorithms and graph theory where we worked on an graph problem and produced 4 + results accepted to CALDAM 2025.

## PROJECTS

ColStore  
**Data Modeling, SQL, C++, ExpressJS, OO-Design, Data Warehousing, XML**  
📅 February 2025 – May 2025

- 🔗 <https://github.com/pradyunuydarp/Column-Store-DBMS.git>
- Engineered a Columnar Data Storage system (DB+DBMS) with an OO Design.
- Integrated a DDL, DML, and a DQL. Future plans include devising APIs and advanced features like indexing and bitmap-indexing ideal for OLAP systems.

LinguaLeap  
**ReactJS, NodeJS, ExpressJS, MongoDB, Docker, Redis, nginx, GenAI APIs**  
📅 November 2024 – May 2025

- 🔗 <https://github.com/Praninara/LinguaLeap.git>
- Deployed at: <https://praninara.github.io/LinguaLeap>
- A gamified language learning platform. As of March 2025, it includes 3 games that support 5 languages including single-player games, and multiplayer games designed with socket.io.
- Ensured scalability by dockerizing the application, using load balancing and distributed systems tools(nginx, Redis), and analytics tools (Prometheus and Grafana).
- LinguaLeap can work with 3000 users at 1500 RPS and 150ms latency.

Twitchalytics++  
**Visual Analytics, Data Analytics, Machine Learning, Python, LaTeX**  
📅 November 2024 – December 2024

- 🔗 <https://github.com/pradyunuydarp/Twitchalytics-plus-plus.git>
- Comprehensively analyzed and linked datasets containing Twitch streamer and game data from August 2019 to August 2020.
- Created visualizations, trained machine learning models, and produced a visual analytics workflow with over 3 feedback loops, following the Visual Analytics Framework proposed by Keim et al. (2008).

Parallelism-driven Library Management System  
**C, Linux, POSIX**  
📅 April 2024– May 2024

- 🔗 <https://github.com/pradyunuydarp/ParalleLMS.git>
- A high-performance Library Management System in C.
- Leveraged POSIX-compliant thread pooling, mutex locks, and a TCP/IP socket-based client-server model for efficient concurrent operations.
- Brought down latency by 67% through efficient multi-threaded architecture.

## SKILLS

### Programming

C++    Java    Python    C    MySQL  
HTML    CSS    JavaScript    OOP    XML

### Technologies & Frameworks

ReactJS    LaTeX    Git    GitHub    Jupyter

### Technical

Data Structures    Algorithms  
Data Modeling    Software Engineering  
Database Systems    Operating Systems  
Software Development    Machine Learning

### Learning & Coursework

Reinforcement Learning    Docker    NodeJS  
ExpressJS    TypeScript    Tailwind    Redis

## PUBLICATIONS

Parameterized Complexity of Coupon Coloring of Graphs

### Algorithms and Graph Theory

📅 October 2024 – November 2024

- Ashok et al. 2025
- The paper was accepted to CALDAM 2025(11th Annual International Conference on Algorithms and Discrete Applied Mathematics).
  - The Coupon Coloring problem is an NP Complete problem that finds applications in network science and coding theory.

## MENTORSHIP

Linear Algebra Teaching Assistant  
**iiitb**

📅 January 2025 – May 2025

## ACHIEVEMENTS

🏆 **Dean's Merit List**    August 2023 – July 2024  
Part of the Dean's Merit List for the academic year 2023-24.

🏆 **Class 12**    June 2021 – July 2022  
Scored 988/1000 academically and 99.07%ile in JEE Mains 2022.

## EXTRA-CURRICULAR SKILLS

Garageband    Music Production    Poetry  
Writing    Audio Editing    Presentation