

Pramag Basantia

pramag24421@iiitd.ac.in | Portfolio | Pushp Vihar, Saket, Delhi-110062 | GitHub | LinkedIn

EDUCATION

Indraprastha Institute of Information Technology, Delhi

Jul, 24 - Jul, 28

B.Tech in Computer Science and Mathematics

CGPA: 8.90 (Till 2nd semester)

Ranked 2nd in the Stream

Amrita Vidyalayam, Delhi

Apr, 22 - Jul, 23

CBSE, Standard 12, PCM+CS

Percentage : 91.8%

Amrita Vidyalayam, Delhi

Apr, 21 - May, 22

CBSE, Standard 10

Percentage : 94.8%

SKILLS

Languages: Python, C++/C, Java, SQL

Tools/Tech: GitHub, Linux, Git, Figma, VS Code, IntelliJ IDEA, L^AT_EX

Frameworks: Java Swing, Maven, React, Next.js, TypeScript, Tailwind CSS

Expertise Area: Data Structures & Algorithms, OOP, Operating Systems, Discrete Structures, Probability and Statistics, Linear Algebra, Computer Organization

PROJECTS

University ERP System | Java, Swing, Maven, MySQL, TCP

Team Size: 2

- Developed a multi-module client-server desktop application managing 500+ course enrollments.
- Devised a custom TCP protocol with 25+ commands to handle secure authentication and file transfers.
- Integrated a notification system with polling-based state management, enhancing UI responsiveness by 25%.

Sep 25 – Nov 25

EGOS Operating System Enhancement | C, RISC-V Architecture

Team Size: 2

- Designed a Multi-Level Feedback Queue (MLFQ) scheduler to implement dynamic process demotion.
- Built kernel-level system utilities (grep, wcl) utilizing direct syscall interfaces for optimized performance.
- Incorporated comprehensive process lifecycle tracking with 7 real-time metrics across interrupt handlers.

Oct 25 – Dec 25

RISC-V Assembler & Simulator | Python, Computer Architecture, Assembly

Team Size: 4

- Constructed a RISC-V assembler from scratch, implementing lexical parsing and binary encoding.
- Built a cycle-accurate RISC-V simulator featuring 32 general-purpose registers and 64KB memory.
- Formulated an automated testing framework and grading system with 20+ test cases and modular architecture.

Jan 25 – May 25

Project Manager | React, Next.js, TypeScript, Tailwind CSS

Team Size: 1

- Developed a task management application with real-time state management using React Context API.
- Implemented dynamic sorting and filtering systems, improving workflow efficiency by 30%.
- Designed an interactive statistics dashboard with circular progress visualization for tracking metrics.

Sept 25 – Dec 25

COMPETITIVE PROGRAMMING

- **CodeForces:** Achieved maximum rating of **1509 (Specialist)** (Handle: Pramag_IIITD).
- **Meta Hacker Cup 2025:** Achieved **Global Rank 2000** (Round 2) and **Rank 2444** (Round 1) among 13k+ participants.
- **ICPC:** Placed **56th** in ICPC de-Tryst (IIT Delhi) and **Rank 1281** in ICPC Online Prelims (out of 3000+ teams).
- **Team Contests:** Secured **Rank 36** in Algozenith Prelims and **Rank 96** in NIT Silchar Coding Competition.
- **Intra-College:** Runner-up (**Rank 2**) in IIITD Prosort and Armsort (Speed Solving); **Rank 3** in Quant Team Competition.
- **Problem Solving:** Solved **1500+ problems** across various platforms including LeetCode, CodeForces, and CodeChef.

POSITIONS OF RESPONSIBILITY

• **Member of Foobar** (IIITD Coding Club)

Nov, 25 - Present

• **Member of Quant Society** (IIITD)

June, 25 - Present

• **Vice Head Boy & Discipline Head** in High School

Jun, 22 - Jun, 24