# Vidit Jain

Bengaluru, India | viditjain@live.com | LinkedIn | GitHub

## EDUCATION

**International Institute of Information Technology, Hyderabad (IIIT Hyderabad)** India
BTech (Honors) in Computer Science & Engineering GPA: 9.69/10 (Major) 9.37/10 (Overall) 2020 - 2024

- **Organizations/Awards:** Honors Research Program, Dean's Honors List (x5), Merit List (x3), Programming Club Lead.
- **Teaching Assistant:** Advanced Algorithms, Design & Analysis of Algorithms, and Discrete Math.
- **Coursework:** Data Structures, Design & Analysis of Algorithms, Database Systems, Distributed Systems, Operating Systems, High Performance Computing, Compilers, Advanced Algorithms, Machine Learning, Probability & Statistics

## WORK & LEADERSHIP EXPERIENCE

### Databricks
Bengaluru, India
Software Engineer
Jan 2025 - Present

- Building the Notifications Platform for Databricks, through which all user notifications are sent. Focusing on creating a reliable platform, minimizing error rates, reducing latency, and providing an easy-to-use interface for services to send notifications.

### Capital One
McLean, VA, USA
Software Engineer
Aug 2024 - Dec 2024

- Worked on developing a platform to enable Capital One entities to automate reporting accounts data to Credit Bureaus. Set up an alert based system in New Relic to detect any accounts lost in processing in the pipeline.
- Implemented glue jobs using PySpark to automate and efficiently perform calculations on 25k+ accounts data.

### Capital One
Dallas, TX, USA
Software Engineer Intern
Jun 2023 - Aug 2023

- Automated the verification of rule changes for loans, implementing a cloud-based system with AWS & a Salesforce interface.
- Implemented an automated version history system for Business Analysts to keep track of changes to 10k+ sets of price structure rules.

### Computer Systems Group (IIIT Hyderabad)
Hyderabad, India
Undergraduate Researcher
Jul 2022 - Apr 2024

- Worked under the guidance of Dr. Suresh Purini, in collaboration with Intel Labs to achieve low-latency optimizations within Intel's implementation of the STAR DNA sequence aligner using vector intrinsics, instruction-level parallelism and other low-level optimizations.

### IIIT Programming Club
Hyderabad, India
Club Lead
Jul 2022 - Sept 2023

- Led the organizing and problem-setting of CodeCraft-23, IIIT Hyderabad's largest event with 25k+ participants. Assisted in conducting another global contest Decode, and organized Botomania, a bot-developing event to win a non-deterministic 2-player game.
- Managed 15+ contests within college, took meets covering Number Theory, advanced String algorithms, and Persistent Data Structures.

## ACHIEVEMENTS

- Codeforces (fangahawk) - 2113 (Master), #60 in India. CodeChef (fangahawk) - 2206 (6 Stars), #400 Globally.
- Google Contests - Kickstart 2022 - #50/12k (Round G) and #86/5k (Round H), Hashcode - #296/10k teams globally, #21 in India.
- ICPC (Team fightFight) - #9 in 2023 Amrita Regional, #10 in 2022 Amrita Regional Prelim Round, #19 in 2022 Asia-West Finals.

## PROJECTS

**Optimizing Bioinformatics (C, C++, OpenMP, Google Benchmark Library)** Link
Sped up the Needleman-Wunsch algorithm by modifying the recurrence relation processing method, optimally using the system cache, and utilizing instruction level parallelism to achieve a 130x speedup. This project was presented to Intel Labs.

**Hybrid Distributed File System (GFS, HDFS, gRPC)** Link
Built a Distributed File System with semantics similar to both Google File System and Hadoop File System, constructing a Consistent & Partition Tolerant Distributed System.

**Database System Design (Databases, C++, Query & Storage Optimization, Indexing)** Link
Extended the functionality of the RDBMS, supporting the efficient storage of matrices, with a specialized page design to improve efficiency of certain queries. Also optimized various database queries (joins, group by) using indexing with the help of B+ Trees.

**xv6 & C Shell (C, Linux, Operating Systems)** Link Link
Implemented and benchmarked syscalls & 3 schedulers for the xv6 OS, developed a unix shell with piping, I/O redirection & signal handling.

**College Course Scheduler (Python, Optimization, OptaPlanner, Scheduling Theory)** Link
Optimized satisfying hard & soft constraints using Local Search & Heuristics to achieve an optimal college-wide course timetable.

**Racket Compiler (Racket, Register Allocation, Graphs, Parsing)** Link
Compiler for Racket to x86asm compilation with support for functions, loops, conditional branching, used DSATUR for register allocation.

## SKILLS & TOOLS

**Languages -** C/C++, Python, Bash, Racket, Scala, SQL
**Skills -** Distributed Systems, HPC, Spark, PySpark, AWS, MapReduce, Linux, Git, Docker, Vim