





# A KISHORE KUMAR



## Software Engineer, Databricks



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### EXPERIENCE


**Databricks**  BLR  Jul 2024 – Present  
**Software Engineer IV**  Sep 2025 – Present  
Building our unified online schema migration infrastructure for multi-cloud, multi-DBMS environments at scale. Schema Council member responsible for company-wide schema optimization and approval.

**Software Engineer III**  Jul 2024 – Sep 2025  
Wrote the Scala-DSPy library and led the design of an agentic RCA framework for database incidents, setting org-wide LLM integration patterns. Improved SQL query scoring and optimization systems across MySQL & TiDB environments. Won 3 consecutive global eng hackathons (#2, #1, #2).

**Uber**  HYD  May 2023 – July 2023  
**Software Engineer Intern**  
Designed and implemented a parallelized, fault-tolerant data pipeline with redundancy, DQ checks, and monitoring. Built using PySpark, Piper and HDFS enabling the secure migration of 50+ TB, our team's largest migration to date.

**HPX**  Remote  May 2022 – Sept 2022  
**Google Summer of Code '22, Open Source Dev**  
Optimized HPX's stdlib implementation by improving compiler codegen (GCC, Clang & ICPX), achieving an 8x AVX256 & 16x AVX512 speedup. Implemented the par\_unseq & unseq policies for <algorithm>, contributing to the C++ std.

**Researcher at Computer Systems Group @ IIIT-H**  Jan 2022 – May 2024  
For Intel, optimized their STAR DNA aligner by developing a novel vectorization approach, achieving a 4x speedup for critical kernels under Dr. Suresh Purini.





**Teaching Assistant at IIIT-H**  Jan 2022 – May 2024  
TA for Algorithm Analysis & Design, Computer Systems Organization, Software Programming for Performance; built & introduced Binary Bomb & Optimization Benchmark judges into curriculum.

**Admin at Programming Club @ IIIT-H**  Jan 2021 – May 2024  
Founded India's then largest ICPC training camp with 4000 students from top institutes. Designed problem sets for contests with 20k+ global participants (CodeForces, CodeChef) and delivered algorithm lectures to 120+ students.

### PROJECTS

- KBLAS** C Benchmark Library & Hand-Vectorized BLAS Implementation for High-Performance Linear Algebra operations. Outperforms industry-used BLIS in L1 operations (up to 2x-4x across different tests) & Stream memory bandwidth benchmarks.
- Sewing-Machine** Realized 130x speedup in Needleman-Wunsch algorithm by optimizing recurrence processing, cache utilization, and leveraging ILP via multi-threading & vectorization. Recognized by Intel Labs - Slides.
- Syscalls, User Processes & Process Schedulers** for xv6-riscv Operating System, and other OS utilities like an **Interactive Shell** with piping, redirection, and zsh commands, in C.
- Racket-Craft** A Racket implementation of a nanopass compiler for (a subset of) Racket to x86asm compilation. Optimization passes include DSATUR graph coloring for register allocation & tail-call optimization

### EDUCATION

**B.Tech. in Computer Science Engineering**  
 **IIIT Hyderabad**  June 2020 - May 2024  
 **CGPA: 9.47** (in-major), 9.01 (overall)  
 Honors • Dean's List (1x) • Merit List (2x)

### AWARDS & ACHIEVEMENTS

- ACM-ICPC** (fightFight)
- Asia-West Continent Finalist 2022 (**#19** globally)
  - Amritapuri Onsite Regional 2023 (**AIR 9**)
  - Amrita All-India Online Qualifier 2022 (**AIR 10**)
- CodeForces** ([akcube](#)) Peak rating: **2114**, (**Master** | India Rank  $\approx 75$ )
- Meta Hacker Cup**
- Ranked 472 globally in Round 2. Was one of 28 Indians to qualify for Round 3.
- Google Coding Competitions**
- Hashcode 2022: Ranked **296** / 10k teams. **#21** in India.
  - Kickstart 2022: Ranked **110** / 7.2k globally (Round B), **185** / 9k (Round F), **129** / 12.3k (Round G)
  - CodeJam: Ranked **3777** globally (2021), **2192** globally (2022) in Round 2
- **Winner, Megathon 2022** (National hackathon with 700+ participants, Prize: 2 Lakhs). Developed an MVP mobile app for Stellantis, integrating Nvidia Instant NeRFs and a novel Dynamic Programming solution to build a gamified incentive-driven environment for drivers.
- **Winner, AI Hackfest** (Bahrain Polytechnic & Microsoft, Prize: \$3000). Engineered a glove with 5 flex sensors to convert hand signs to audio using TTS & an app utilizing Azure cognitive services to provide near real-time audio descriptions of surroundings for visually impaired individuals
- **Winner, Turing Cup '24** Programming contest organized by TuringHut, VNRVJiet. (1400+ national participants)

### WRITING & TALKS

- [akcube.github.io](#) Publish detailed notes, tutorials, and learnings on topics including HPC, algorithms, databases, LLMs, ML and finance. 58+ blogs and 100+ monthly readers.
- Delivered a national lecture on Centroid Decomposition & Auxiliary Trees as part of India's largest ICPC training camp, viewed by 700 participants.
- Delivered talks to audiences of over 50+ people as a moderator for the Theory Reading Group @ IIIT-H. Organized regular meetups and covered topics such as High Performance Computing - Slides
- Built Programming Club @ IIIT-H's website using Jekyll. Hosted using github pages. (10k+ yearly visitors)
- Stack Overflow member [@KISHORE\\_ZE](#) (1456 points)

### SKILLS

C++

Python

Scala

SQL

Java

Bash

Databases

RDS / Azure

Kubernetes

Inference

PySpark

DSPy/LLMs

AVX/Vectorization

CUDA

Bazel

Query Optimization

Distributed Systems