

Pritesh Kumar Verma

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EDUCATION

ITM University

Bachelors in Technology in Computer Science and Engineering.

Gwalior (M.P.), India

(2016 - 2020)

CGPA 8.04

Relevant Coursework: Data Structures and Algorithm, Discrete Mathematics, Programming, Operating System, Computer Networks, Databases.

Sri Chaitanya Junior, College

Intermediate. Percentage 84.7

Vijayawada (A.P.), India

(2013 - 2015)

Relevant subjects: Mathematics, Physics, Chemistry, English, Sanskrit

TECHNICAL SKILLS

Programming Languages: C, C++, Java, SQL, Python, Matlab | **Databases:** SQLite, MySQL | **Frameworks/API:** Numpy, Pandas, Matplotlib, Git, Github, OpenMp, LAPACK, CBlas

EXPERIENCE

Indian Institute of Technology Junior Research Fellow

Dharwad
(June 2021 - Present)

Parallelizing and distributed-memory implementation of super-fast eigen solvers for large scale matrices.

Raintree System Incorporated Software Engineer

New Delhi
(Mar 2021 - May 2021)

Created and designed interactive forms of different categories for the different Hospitals and insurance agencies, both for Raintree's web-client and software. Debugged and fixed the issues of different clients using RSL(Raintree Scripting) and MySQL.

CSIR-Central Drug Research Institute Intern

Remote
(May 2019 - June 2019)

Collected, Cleaned, and organized Databases using SQL and using python libraries.

PROJECTS

Fast algorithms for hierarchically semiseparable matrices.

Implemented the algorithm for construction of Generators of Symmetric matrix for efficient storage along a binary tree in C++, Construction achieves the storage of $(r \log n)$ for $n \times n$ matrices where r is the row block size. The Generators can be used for solving various complex mathematical problems such as Cholesky factorization, Spectral decomposition etc.

SUPERDC

Implemented SuperDC (Super divider and conquer) algorithms for computing eigenvalues and eigenvectors of large symmetric matrices. Computation of eigenvalues and vectors of large matrices could take large computation time like $O(n^3)$. Whereas SuperDC takes only $O(r^2 n (\log^2 n))$.

Leaderships and honours

- NCC (National cadet corps), NCC aims at developing character, comradeship, discipline, a secular outlook, and spirit.
- Best captain award for team management.
- Silver medal in 800 meter race (Universities Annual Day).
- Silver medal in Photography (Universities Annual Day).