

Vimal PatelIISc mail-id : vimalm@iisc.ac.ingmail-id : pvimal816@gmail.comskype-id : [live:pvimal816](https://www.skype.com/user/pvimal816)

Mobile No.: 9099378806

ACADEMIC DETAILS

Examination	University	Institute	Year	CGPA/%
Post Graduate Specialization: Post Graduation	<i>Computer Science and Engineering</i> IISc Bangalore	IISc Bangalore	2022	9.0
UnderGraduate Specialization: Graduation	<i>Information Technology Engineering</i> Gujarat Technological University	VIER, Vadodara	2019	8.5

FIELDS OF INTEREST

- Operating systems, High-Performance Computation, Algorithms

TECHNICAL SKILLS

- **Languages** (C, C++, Rust), **Database** (MySQL), **Script** (Python), **Tools** (L^AT_EX).

MAJOR PROJECTS

- **Port Mbed-TLS library to Rust** (M. Tech. Course Project)
(Guide: Prof. Vinod Ganapathy, Nov'20 - Jan'21)
 - I, along with three other students, was responsible for porting hashing module. Some constructs in the C programming language are not readily portable to Rust, which gave rise to some design challenges.
- **Performace optimize diagonal matrix multiplication** (M. Tech. Course Project)
(Subject: High-Performance Computing Architecture Jan'21)
 - The objective was to find bottlenecks in reference code and optimize it for a single thread, multiple threads, and CUDA. The optimized version achieved speedup up to 5x, 37x, and 8x using a single thread, multiple threads, and CUDA, respectively.
 - A primary challenge in the multi-threaded version was to achieve a lower cache miss ratio while maintaining a low synchronization overhead.
- **Housing price prediction** (M. Tech. Course Assignment)
 - The objective was to train a linear model using a gradient descent method to predict housing prices.
- **Spectral Clustering** (M. Tech. Course Assignment)
 - Given an image containing English letters, the objective was to find groups of pixels that form a letter.
- **Blogger**
Jul'18-Sep'18
 - A JavaScript based web app to publish blogs.
 - Tech stack: MySQL, ExpressJS, and NodeJS

Awards / Scholarships / Academic Achievements

- All India Rank 12 in Graduate Aptitude Test in Engineering(Computer Science & Information Technology)

INTEREST AND HOBBIES

- Problem solving, Competitive Programming(5 star at codechef)