



# Ishan Patel

**Graduate Institution:** Massachusetts Institute of Technology

**Graduate Discipline:** Chemistry

**Hometown:** Ahmedabad, India, and Westborough, MA

**Relevant SC Research:** Advanced Scientific Computing Research

## Research Interest:

I'm interested in developing and utilizing computational chemistry and biology techniques. More specifically, I'm utilizing quantum/molecular mechanical simulations to understand why enzymes have varying levels of catalytic abilities for different substrates, and how that information can be used to develop better catalysts and/or inhibitors [protein or synthetic]. I'm also interested in developing GPU-based computational methods. My past research interests were surface enhanced Raman spectroscopy of bacteria, pattern recognition, machine learning, synthetic organic chemistry, visual cortex neuroplasticity, and antibiotic drug design.

I'm also interested in almost all facets of the intersection of Science/Engineering, Policy, Design, Finance, and Business/Entrepreneurship; consequently, I'm currently learning how workings of valuation, corporate structure, capital budgeting, promoting innovation, along with many other related fields.

## About Me:

Born in Ahmedabad, India, and raised in central Massachusetts, I left a lot to the imagination of what school in faraway places would be like by attending Boston University for undergraduate studies and moving 2000 feet away to MIT for graduate school. I've been fortunate enough to have resided in such a diverse city and, hence, in my free time, have been

fortunate enough volunteer at hospitals, mentoring programs, shelters and schools. However, my proudest achievement to date has been hosting and organizing the Science Bowl while I was at Boston University. The city's diversity has also allowed me to explore all my professional and career interests, which in conjunction with my aforementioned interests has led me to be interested in working with any combination (or all) of the previously mentioned facets on problems related to healthcare, energy, national defense, renewable materials, and many others!

In my free time I'm found furniture making, wood/veneer-working, making and using electronic devices, doing backyard astronomy, investing in the stock market, cooking, playing sports, and watching my beloved Red Sox, Bruins, Celtics, and Patriots.



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