

# Mihir Kavatkar

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## EDUCATION

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UNIVERSITY OF MASSACHUSETTS DARTMOUTH

NORTH DARTMOUTH, MA

Master of Science in Computer Science.

Graduation Date: May 2016.

Cumulative GPA: 3.58.

VIDYALANKAR INSTITUTE OF TECHNOLOGY

MUMBAI, INDIA

(AFFILIATED TO MUMBAI UNIVERSITY)

MAY 2014

Bachelors in Computer Engineering. Graduated with First Class. GPA: 3.5 out of 4.0.

## TECHNICAL SKILLS

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OpenACC	C/C++	Python	Java	JavaScript	HTML	CSS	Swift
NPACI Rocks	Linux(Ubuntu)	Mac OSX	Portable Batch System				

## RESEARCH EXPERIENCE

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UNIVERSITY OF MASSACHUSETTS DARTMOUTH

NORTH DARTMOUTH, MA

BUILDING A SUPERCOMPUTER INFRASTRUCTURE

MAY 2016 - PRESENT

- Building a 32 node supercomputer cluster using the Nvidia Jetson TX1(Tegra). I have fully configured all the system to have password less access from the head node and also contributing for integration and networking of all the nodes. Future plans are to extend the cluster to a total of 64 nodes.
- Building another 40 node supercomputer cluster using x86-64 high end GPUs. I am in the process of installing Rocks Cluster Distribution( NPACI Rocks) on the supercomputer and also contributing to the integration and networking of all the nodes.

UNIVERSITY OF MASSACHUSETTS DARTMOUTH

NORTH DARTMOUTH, MA

RESEARCH ASSISTANT

DECEMBER 2014 - MAY 2016

Master's Thesis: Projects in GPU Computing with Performance and Benchmark Analysis.

- Successfully defended my Master's thesis. The objective was to benchmark an open parallel programming language OpenACC in terms of performance, portability and ease-of-use. Two heavy computation model in the field of Black hole physics - a Teukolsky equation and a Scalar Collapse code was used for the research. Finally, a case study on distributed computing with deep learning was also a part of my Master's thesis.
- Programming Language: C, OpenACC, OpenCL and CUDA.

PATTERNS AND PREDICTIONS, INC.

NORTH DARTMOUTH, MA

SUMMER RESEARCH ASSISTANT INTERN

JUNE 2015 - JULY 2015

- Firstly, assessment and testing of current code of the company's project on Artificial Intelligence ([www.drlearn-er.org](http://www.drlearn-er.org)). Furthermore, development of a high-level python script to remotely execute different instances of the project on Amazon's Elastic Cloud(EC2) cluster with different parameters and analyzing the best performing node in the cluster.
- Programming Language: Python, C.

UNIVERSITY OF MASSACHUSETTS DARTMOUTH

NORTH DARTMOUTH, MA

RESEARCH PROJECT: BENCHMARKING C VERSUS SWIFT

NOVEMBER 2014 - JANUARY 2015

- Developed a Swift version of a Teukolsky code and finally benchmarking it for performance in comparison to C code with and without command line options.
- Programming Language: C, Swift.

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## PROJECT EXPERIENCE

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UNIVERSITY OF MASSACHUSETTS DARTMOUTH

NORTH DARTMOUTH, MA

PROJECT: THINK AGAIN - A FUN GAME DESIGNED TO HELP SOLVE COMPLEX LOGIC PROBLEMS

TEAM LEADER AND DEVELOPER

APRIL 2015 - MAY 2015

- My task was to develop the User-Interface of the game with the aim of user friendliness and ease-of-use.
- Programming Languages: JavaScript(CreateJS, visJS), Python, jQuery, Ajax, HTML, CSS.

VIDYALANKAR ONLINE APPLICATION

MUMBAI, INDIA

PROJECT: ONLINE ASSIGNMENT SUBMISSION SYSTEM & ASSESSMENT WITH ANTI-PLAGIARISM

TEAM LEADER AND DEVELOPER

JANUARY 2013 - MARCH 2014

- Online Assignment Submission & Assessment with Anti-Plagiarism is a live project for our college. It would facilitate online assignment submission for students and grading for faculty with copy detection feature to find the plagiarized assignments.
- Programming Languages and Technologies: HTML, CSS, JavaScript, jQuery, vBulletin and MySQL.

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## ADDITIONAL EXPERIENCE

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UNIVERSITY OF MASSACHUSETTS DARTMOUTH

NORTH DARTMOUTH, MA

SIGMA XI - RESEARCH EXHIBITION

APRIL 2015

TOPIC: OPENACC - A PARALLEL COMPUTING FRAMEWORK

- Participated at the poster exhibition to present my research to the University and other industry people.

IEEE BOMBAY SECTION

MUMBAI, INDIA

INTERNATIONAL CONFERENCE

APRIL 2014

TOPIC: IMPLEMENTATION OF ONLINE ASSIGNMENT SUBMISSION WITH FEATURE OF ANTI-PLAGIARISM

- Honored with First prize for best paper in Computer Science department.

VIDYALANKAR INSTITUTE OF TECHNOLOGY

MUMBAI, INDIA

INTERN FOR UNIVERSITY WEBSITE

MAY 2012

- Successfully developed and modified the existing Event Management Module making it more useful and optimized.

VIDYALANKAR INSTITUTE OF TECHNOLOGY

MUMBAI, INDIA

DALE CARNIEGIE PROGRAM

AUGUST 2013

- Step Up To Professional Experience - A program to teach professional ethics.

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## SKILLS AND INTERESTS

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- Languages: Fluent English and French(Beginner Understanding).
- Interests: Travelling, Table Tennis and Music.