

# Mihir Kavatkar

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## EDUCATION

UNIVERSITY OF MASSACHUSETTS DARTMOUTH

NORTH DARTMOUTH, MA

Master of Science in Computer Science.

Graduation Date: May 2016.

Cumulative GPA: 3.63.

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

OpenACC	C/C++	Python	Java	JavaScript	HTML	CSS	Swift
NPACI Rocks	Linux	Mac OSX	Portable Batch System	AngularJS	MongoDB	ExpressJS	NodeJS

## PROFESSIONAL EXPERIENCE

ALZHEIMER'S THERAPEUTIC RESEARCH INSTITUTE (ATRI) - UNIVERSITY OF SOUTHERN CALIFORNIA

SAN DIEGO, CA

PROGRAMMER ANALYST II

AUGUST 2016 - PRESENT

- Developing Complex Electronic Data Capture Systems used in Clinical trials conducted by ATRI.
- Contribution in a Agile development methodology, from requirements definition through deployment. Using Atlassian JIRA and Confluence.
- Creating Restful API endpoints using Python(Django) and Django Rest framework.
- Developing the front-end to consume the API using AngularJS/HTML5/CSS
- Practicing test driven development to write unit tests, functional tests. Using continous integration (Travis Pro) extensively to run test build.
- Experience with Amazon Web Services (EC2, S3)

ELECTRA VEHICLES, INC

BOSTON, MA

SOFTWARE DEVELOPER INTERN

JULY 2016 - AUGUST 2016

- Developing a hybrid app which can be deployed on ios and android platforms.
- The app uses Ionic Framework which uses AngularJS for the front-end. The Backend is developed using ExpressJS and a node server.
- Behaviour driven testing which used angular-mocks for front-end, while Mocha and chai, for the backend and routes. Integrated it with Gulp(task runner).
- Electra Vehicles have a hybrid energy storage platform for Electric and Hybrid Electric Vehicles where the app monitors and logs the behaviour of the system.

UNIVERSITY OF MASSACHUSETTS DARTMOUTH

NORTH DARTMOUTH, MA

BUILDING A SUPERCOMPUTER INFRASTRUCTURE

MAY 2016 - JUNE 2016

- Built a 32 node supercomputer cluster using the Nvidia Jetson TX1(Tegra).
- Fully configured, all the system to have password less access from the head node and also contributed for integration and networking of all the nodes.
- Built another 40 node supercomputer cluster using x86-64 high end GPUs.
- Installed Rocks Cluster Distribution( NPACI Rocks) on the supercomputer and also contributed to the integration and networking of all the nodes.

UNIVERSITY OF MASSACHUSETTS DARTMOUTH  
RESEARCH ASSISTANT

NORTH DARTMOUTH, MA  
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 deep learning with distributed computing was also a part of my Master's thesis.
- Programming Language: C, OpenACC, OpenCL and CUDA.

PATTERNS AND PREDICTIONS, INC.  
SUMMER RESEARCH ASSISTANT INTERN

NORTH DARTMOUTH, MA  
JUNE 2015 - JULY 2015

- Assessment and testing of the company's project code on Artificial Intelligence ([www.drlearner.org](http://www.drlearner.org)).
- Developed 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  
RESEARCH PROJECT: BENCHMARKING C VERSUS SWIFT

NORTH DARTMOUTH, MA  
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  
PROJECT: THINK AGAIN - A FUN GAME DESIGNED TO HELP SOLVE COMPLEX LOGIC PROBLEMS  
TEAM LEADER AND DEVELOPER

NORTH DARTMOUTH, MA  
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  
PROJECT: ONLINE ASSIGNMENT SUBMISSION SYSTEM & ASSESSMENT WITH ANTI-PLAGIARISM  
TEAM LEADER AND DEVELOPER

MUMBAI, INDIA  
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  
SIGMA XI - RESEARCH EXHIBITION  
TOPIC: OPENACC - A PARALLEL COMPUTING FRAMEWORK

NORTH DARTMOUTH, MA  
APRIL 2015

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

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## SKILLS AND INTERESTS

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