



Ashwin Rajendra Khadke  
Mechanical Engineering  
Indian Institute of Technology Bombay

120100028  
UG Second Year  
Male  
DOB: 22/01/1994

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2014	9.43
Intermediate/+2	Maharashtra State Board	Deogiri College	2012	85.00
Matriculation	Maharashtra State Board	S.B.O.A. Public School	2010	95.80

## Academic Achievements

- Secured All India Rank 190 in IIT-JEE
- Awarded **KVPY** Fellowship in year 2012
- Awarded **NTSE** (National Talent Search Examination) Scholarship in year 2008
- Awarded **INSPIRE** (Innovation in Science Pursuit for Inspired Research) Scholarship in year 2012

## Projects

**Winter Internship** | Logical Automation Solutions Pvt. Ltd. [Dec'13]

- Scripted a 6 axis robotic arm (Universal Robots UR5) to perform pick-up-and-place operation and developed a sketching application on the same
- Programmed it to sketch simple shapes and also to sketch pictures on input

**Institute Technical Summer Project** | IIT Bombay [May'13-Jun'13]

- Designed an autonomous surveillance vehicle as part of project
- Learned to code on AVR platform

**Magnetocaloric Effect** | IIT Bombay [Aug'13-present]

*Guide: Prof. K. G. Suresh*

- Studying mechanisms to maximize efficiency of magnetic refrigeration at room temperature
- Exploring cheaper substitutes for Gadolinium alloys as working material

**Battleship** | IIT Bombay [Feb'13-Jun'13]

- Designed a single player game in C++
- Programmed the computer to play as 2nd player

**Line Follower & RC Car** | STAB [Oct'12]

- Designed an autonomous vehicle that could follow a black line on a white surface, navigate intersections and turn on curves
- Designed a RC car for a competition in freshman year

## Extracurriculars

### Sports

- Represented school at state level Badminton tournament organized by SAI (Sports Authority of India)
- Completed Basic Water Sports course at Atal Bihari Vajpayee Institute of Mountaineering and Allied Sports

## Cultural

- Passed Elementary Drawing Grade Examination conducted by Government of Maharashtra
- Received Jury Honor in Sketch India 2002- National Exhibition of Art for Children and Young People
- Edited and Directed a Music video for Inter-Hostel Competition

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## Technical Skills

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- Worked with C and C++ languages
- Basic knowledge of Eagle, Arduino coding, Solidworks, MATLAB and AutoCAD

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## Courses Completed

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| ● Calculus                                | ● Engineering Mechanics                              |
| ● Modern Physics                          | ● Fluid Mechanics*                                   |
| ● Linear Algebra                          | ● Structural Mechanics*                              |
| ● Ordinary Differential Equations         | ● Manufacturing Processes*                           |
| ● Data Analysis and Interpretation        | ● Thermodynamics                                     |
| ● Computer Programming and Utilization    | ● Solid Mechanics                                    |
| ● Discrete Structures (Minor)             | ● Probability and Random Processes                   |
| ● Economics                               | ● Introduction to Electrical and Electronic Circuits |
| ● Data Structures and Algorithms (Minor)* | ● Engineering Metallurgy                             |
|   | ● Introduction to Numerical Analysis*                |
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Courses marked \* will be completed by the end of May 2014