

# Devashish Purandare

## Curriculum Vitæ

firstname at outlook dot com  
www.devashishpurandare.me  
in.linkedin.com/in/devashishp  
github.com/devashishp

### Education

- 2012–Present **Bachelor of Engineering, Computer Engineering.,** *University of Pune, India.*  
69.23% - First Class with Distinction.
- 3<sup>rd</sup> rank in Sophomore year.
  - Ranked in the top 10% in every semester (among 250).
  - Courses on Data Structures, Operating Systems, Networking, Databases and Data Mining, Algorithms, Compilers, Computer Graphics, Artificial Intelligence, Microprocessors, Game Theory.

### Computer Skills

Intermediate C++, Python,  $\text{\LaTeX}$ .

Competent JAVA, HTML, C#, C, JavaScript, Adobe Photoshop.

Familiar CorelDraw, Matlab, Shell, MongoDB, SQL, Assembly, R, CUDA, Spark, LEX, YACC.

### Projects

- 2015–Present *Performance improvement of hybrid Content Based Image Retrieval (CBIR)*  
Similar image retrieval system using global features – shape; and local features – Discrete Wavelet Transform (DWT) of shape distribution and Single Value Decomposition (SVD) of the image:
- Senior year capstone project sponsored by Persistent Systems.
  - Tools and Technologies :
    - Python for the project, OpenCV for image processing.
    - MongoDB with Map-Reduce for storing and searching JSON descriptors.
    - NVidia CUDA (PyCUDA) to speed up image processing.
    - $\text{\LaTeX}$  for documentation, paper.
  - Progress :
    - Fully functioning prototype in MATLAB.
    - Mathematical modelling, analysis and UML diagrams.
- 2014–Present *Daily Image - Firefox OS app*  
HTML5 web app to retrieve the daily NASA and Bing image along with description and ability to set it as wallpaper.
- Technologies used :
    - HTML, CSS, JavaScript.
    - JQuery, Bootstrap for layout and scripting.
    - PHP for server-side scripting.
  - 2500+ installations.
  - Link - [marketplace.firefox.com/app/daily-image](https://marketplace.firefox.com/app/daily-image)

2014 *Motion detection*

Python program using OpenCV to detect and respond to hand gestures to flip through slides or photos :

- Works cross platform and in any application in less than 120 lines of code.
- Code – [github.com/devashishp/MotionDetection/](https://github.com/devashishp/MotionDetection/)

2014 *Election management system*

As a part of mini-project, junior year coursework:

- JAVA for programming, MySQL for database.
- Ranked in top 10 mini-projects (among 60).
- Election results with complete constituency wise trends – distribution of voters based on age, sex and religion.

---

## Seminar

2014 *Use of Natural Language Processing to detect and prevent Wikipedia Vandalism*

As a part of junior year 'Technical Communication' laboratory:

- Proposed multi-faceted approach using :
  - Natural Language Processing.
  - Machine Learning.
  - Metadata.
  - Reputation.
- Ranked in top 10 - technical communication (among 250 seminars).

2014 *Typesetting using L<sup>A</sup>T<sub>E</sub>X*

'Tectonic' 2014 – Inter-college festival – organizer and head of the event.

---

## Extra-curricular activities

2013 'Editor in Chief' of the college newsletter – 'The DEN'.

2014–Present 'Vice President' of 'The English Club'.

2012–2013 *Certificate in Spanish Language*.

- Ranade Institute, University of Pune.
- Equivalent to 'Instituto Cervantes' - A2 level.

---

## Awards

2012 Higher Secondary Certificate - Computer Science II 99/100, 2<sup>nd</sup> rank in state (25,000 test takers), 1<sup>st</sup> in institute.

2008 Maharashtra State Talent Search - 6<sup>th</sup> rank in district (100,000 test takers).