

# VIRAJ PRABHU

311, Sobha Quartz, Palm Avenue  
Bengaluru, Karnataka 560103  
[GitHub](#) ◇ (+91) 9672447022 ◇ [Website](#) ◇

## EDUCATION

---

### **Birla Institute of Technology and Science, Pilani**

*August 2015*

B.E.(Hons.) in Computer Science

GPA: 8.56/10

### **Sathaye College, Mumbai**

*May 2011*

Higher Secondary Certificate

81%

### **Lilavatibai Podar High School**

*May 2009*

Indian Certificate of Secondary Education

97.3%

## EXPERIENCE

---

### **Adobe Systems, Inc**

Jul 2015 - Present

*Member of Technical Staff*

*Bengaluru, KA*

- Developer on the Adobe Captivate Prime team. Implemented a feature for localization and internationalization of the product using EmberJS.

### **Tonbo Imaging**

Jan - Jun 2015

*Intern*

*Bengaluru, KA*

- Developed and implemented an algorithm in MATLAB for automated estimation of intrinsic camera parameters using a specialized target and collimator setup, to within 5% of ground truth.
- Implemented software for a boresighting product in embedded C on a DM365 processor to align firearm muzzle and sight.

### **Adobe System Inc.**

May - Aug 2014

*Summer Intern*

*Bengaluru, KA*

- Designed and implemented a novel Grabcut-based segmentation algorithm Keyframe Cut for real-time background removal and substitution in videos that fused color, motion, shape prior and adaptive background cues.
- Application was developed in C++ as a feature for the e-learning content authoring tool, Adobe Presenter Video Express(PVX) and demonstrated an average error rate of under 6% over a test dataset.
- The feature was developed further and integrated into PVX 11, titled as *Magic Green Screen*.

### **Orange Business Services.**

May - Jul 2013

*Summer Intern*

*Mumbai, MA*

- Developed a secure web portal to automate customer data log creation for quality assessment purposes.
- The portal was developed using PHP and MySQL for the back end, and HTML and JavaScript for the front end.

## TECHNICAL SKILLS

---

<b>Programming Languages</b>	Python, C++, Java, MATLAB, JavaScript (EmberJS, AngularJS)
<b>Operating Systems</b>	Linux, Windows
<b>Tools</b>	Git, Visual Studio, Eclipse, Qt

## PROGRAMMING PROJECTS

---

### NewsLine

- Developed a Python application to crawl, cluster and chronologically present news articles pertaining to the same story with good accuracy.
- The application makes use of Scrapy for crawling and performs Hierarchical Agglomerative Clustering to cluster the articles, the optimal partitioning of which is determined algorithmically.

### Speaker Detection using Multiple Kinects (under Dr. J.L.Raheja, CEERI Pilani)

- Developed a multithreaded C# teleconferencing application that employs three Kinect sensors to identify the current speaker and displays only his face on the central display.
- The application seamlessly swaps between between the sensors as different speakers speak.

### MARS (Music Analysis and Recognition Software)

- Developed an application that uses a Bayesian classifier trained on spectral characteristics of songs to recognize their genres with good accuracy. This was further extended to auto-equalize songs.
- Awarded Second prize, Software Design category, APOGEE 2013, BITS Pilani's annual techfest.

### Compiler project

Developed the front and back ends of a compiler in C for a custom programming language as the project component of a course on compiler design.

### Branch and Bound

Implemented algorithms for different NP-complete problems using a Branch-and-Bound framework and parallelized them using OpenMP and MPI, as part of a course on Parallel Computing.

### Sign Language to Speech Converter

- Developed an application that recognizes a vocabulary of ASL gestures and converts them to speech using the Microsoft Kinect, as an aid for the speech impaired.
- The software trains a Hidden Markov Model from features extracted using Kinect Skeletal Tracking and OpenCV libraries from training gestures, and then identifies the gesture in non-complex backgrounds. Presented at APOGEE 2014, BITS Pilani's annual techfest.

## EXTRA CURRICULAR ACTIVITIES

---

- Editor, International Press, BITS MUN 2013 - Led a team of 20 student reporters, photographers and designers and was responsible for bringing out daily newsletters to cover the happenings of BITS MUN 2013.
- Head Boy, Lilavatibai Podar High School, year 2008-2009 - represented the school at all inter and intra-school events.
- Member of the English Press Club and the Department of Sounds at BITS Pilani
- Enjoys reading, playing music and quizzing