

VIRAJ PRABHU

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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

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

PROGRAMMING PROJECTS

<https://github.com/virajprabhu>

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