N Hari Prasad
Curriculum Vitae

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Education
- Pursuing a Bachelors degree (currently 3rd year) in *Computer Science and Engineering* from BITS Pilani, Pilani Campus. Current CGPA(after 4 semesters) – 9.21/10
- SBOA School and Junior College, Chennai – Class 12: 95% Class 10: 94.4%

Technical skills
- **Operating Systems** Ubuntu, Windows, Mac OS X
- **Programming Languages** C,C++,Python,MATLAB,Java,Processing,HTML,Javascript,MySQL

Online Presence
- **Blog** http://machlearner.wordpress.com
- **Github** https://github.com/redoc2010

Work Experience

June 2011 – July 2011

Summer Internship, *Intern*, Inforill Technologies, Chennai.

- Developed an animation prototype for Project Quantum(A Pedestrian Simulation) using the Processing and Processing.js frameworks, HTML and Javascript. Used output data to drive the animation prototype in a web based HTML frontend using Play Framework.
- Contributed to the existing Shop2Cook client project. Used Objective-C and the iPhone iOS development framework to develop modules related to JSON and XML data processing.
- **Mentor: Dr. Mohideen Noordeen, Managing Director, Inforill Technoloies**

May 2012 – July 2012

Practice School, *Intern*, Scientific Information Research Division, Indira Gandhi Center for Atomic Research - Part of DAE, Kalpakkam.

- **Study** Knowledge Representation using Ontologies, tools for creating, working with Ontologies. Used Protege and Jena.
- **Project - Ontology Mapping** Created a JAVA Swing based GUI app to perform Ontology Mapping on Nuclear Domain Ontologies. Used Alignment API for parsing owl ontologies and displaying results. Extended the API with new matchers and compared their perfomance.
- **Mentors: Mrs. N. Madurai Meenachi, Scientific Officer, IGCAR ; Dr. Sai Baba, Head, Scientific Information Resource Division, IGCAR**

Projects and Events

Aug 2011 – Dec 2011

Computerized Lip Reading using Fuzzy Logic.

- Lip Parameters are extracted from image sequences using Viola Jones algorithm and Active Shape Models (ASM). Features are represented as Gaussian Fuzzy Numbers. Using the weighted mean method, Gaussian Fuzzy Numbers of a image are correlated with a phoneme. Used OpenCV for image processing and MATLAB for fuzzy logic operations.
- **Paper** titled "Computerized Lip Reading using Fuzzy Logic" presented in APOGEE 2012

- **Mentor: Prof. Shivi Agarwal, Department of Mathematics, BITS Pilani**

Aug 2011 – Current   **Scene Recognition in images**.

- Done as part of Mobile Computing Group's Computer Vision Team
- Obtained metrics from scene images – correlation, chi-square, intersection and bhattacharya distances; derivative magnitude and direction. Fed these data into machine learning algorithms (kNN and SVM classifiers) to get a similarity measure between the images. Used OpenCV and C++ for implementation.

Mar 2012   **C.O.D.E.R. 2012 - A 24 hour algorithmic coding event conducted by CSA, BITS Pilani**.

- Won 1st prize in the event as part of a 2 member team.

Sep 2012   **eX-Opti - An Expense Management System**.

- Done as part of a 2 member team for Desert Hack - a week long hackathon
- eX-Opti is a multi-platform expense management system hosted on the Google App Engine. It can be accessed either through the website (www.ex-opti.appspot.com) or through telephony(+91-4466949325). It was built using Python, HTML and JQuery(optimized for mobile) using the Kookoo API and Google Charts API.

Sep 2012   **Optimus-Webwizard**.

- Done for Webwizard - A Google Devfest Hackathon Event, as part of a 2 member team
- The objective of the event was to use the maximum number of Google APIs in a website. Optimus-Webwizard is built using Python, HTML5 and Javascript and hosted on the Google App Engine and uses 8 Google APIs
- Won 3rd prize in the event

Oct 2012-Nov 2012   **Image Compression Algorithms**.

- Implemented Discrete Cosine Transform and Singular Value Decomposition based Image Compression Algorithms in MATLAB as part of the course Multimedia Computing
- **Mentor: Prof. Shailendra Singh Shekhawat**

Nov 2012   **ACM ICPC Amrita Regionals**.

- Ranked 72 out of 1300 registered teams in Online Contest. Selected for Onsite.

Online Courses.

- Machine Learning (by Andrew NG, Stanford University) - Received statement of accomplishment for scoring more than 80% in the course

Positions Held

- Captain – Swimming Team, BITS Pilani for the year 2012
- Head of Computer Vision Team – Mobile Computing Group, BITS Pilani for the year 2012
- Part of 4 member Project Forum Team, Computer Science Association, BITS Pilani for APOGEE 2013
- Campus Ambassador for Tower Research for the academic year 2012-2013

Achievements

- **Merit Scholarship** Received Merit Scholarship by BITS Pilani for securing top 1% CGPA at the end of first year
- **KVPY Scholarship** Shortlisted for KVPY Scholarship awarded by Department of Science and Technology, Government of India.
- **Olympiads** Selected as one among 300 Nationwide in Indian National Chemistry Olympiad(INChO) and Indian National Physics Olympiad(INPhO)