

VINAY RAO

PERSONAL DATA

PLACE AND DATE OF BIRTH: Bangalore, India | 15 May 1991
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EDUCATION

Fall 2014-2016 Master of Science in COMPUTER SCIENCE
University Of Southern California, Los Angeles
Current, First Semester

2009-2013 Bachelor of Engineering in COMPUTER SCIENCE
BMS College of Engineering, Bangalore, India
GPA: 8.77/10

2007-2009 Pre-University **Kumaran PU College**, Bangalore, India
SCORE: 95/100

2007 Primary & Secondary School **Kumaran School**, Bangalore, India
SCORE: 84/100

PROFESSIONAL WORK EXPERIENCE

AUG 2013-14 **Amazon Development Centre**, Bangalore, India
Software Development Engineer
Worked as a full stack engineer for Amazon.in in the Platform Development team. Worked as one of the first members in a new team, on a wide variety of projects including internal tools and reports, features for the retail website for India, mobile customer experience, aggregation and search.

JAN-JULY 2013 **Aindra Systems**, Bangalore, India
Product Engineer, Intern/Consultant
Worked as a researcher and programmer, on projects mainly concerning computer vision and machine learning. Projects worked on include: face detection (implemented methods that use SURF, LBP, NBP etc), face tracking (multi-threaded multiple face tracking system), face recognition (using several methods including compressive sensing as a classifier, neural networks etc), face verification, vision applied to medical imaging (to detect cell carcinoma), vision applied to detect anomalies on textiles etc.

COURSE-WORK AND RELEVANT EXPERIENCE

- 2012-13 | **Bachelor's Thesis**
ON THE TECHNIQUES AND FEATURES FOR OBJECT RECOGNITION
Conducted research on various techniques used in computer vision for generic object recognition, and implemented several algorithms. Did a comparative study of some older approaches such as using closed form representation of borders against newer methods that use tailored feature extractors (SURF/SIFT) with traditional classifiers, and classifiers that extract features automatically (such as convolutional networks). Implemented several algorithms and methods ground up using standard numerical libraries in C++ and Python.
- 2012 | **Google Summer Of Code, Contract Developer**
SAVE/LOAD SYSTEM FOR GLUON, KDE
Developed a generic persistent (GDL) game save and load system for Gluon (Game development engine). Implemented a system to maintain scene graphs and quickly translate states to serializable Javascript objects. Implemented a generic tagging system to guide game development, and worked on incremental save/loads that enabled smaller persistent files.

TECHNICAL SKILLS AND INTERESTS

- Languages: C,C++,Python,Java,JavaScript,Php,C#
Matlab, Octave, perl
- Frameworks: OpenCV,OpenML,Django,Qt,numpy,scipy,sklearn,nltk
- Interests: Machine learning, computer vision, artificial intelligence

CO-CURRICULAR ACTIVITIES

- Open Source: Have contributed to various Open Source Projects like KDE, OpenCV, etc
Organized Software Freedom Day for 2 years at BMSCE.
Conducted weekly sessions, and given talks about ML, Open Source tools and platforms like Python, KDE, SciPy, NLTK, Django.
- Student Groups: Have been part of various discussions and activities of BMSLUG
- Events: Have organized events for BMSLUG in college.
As part of the organizational committee for the departmental fest, I have organized events like coding competitions

EXTRA CURRICULAR ACTIVITIES

- Music: Have been learning Indian Classical Music(Flute) from the last 13 years
Completed Senior grade certification in Carnatic music
Performed at several events and venues
- Sports: Cycling, running, basketball