Gopalakrishnan S 09305915
Computer Science & Engineering **M.Tech.**
Indian Institute of Technology, Bombay **Male**
Specialization: Computer Science & Engineering **DOB: 19/03/1988**

Examination	University	Institute	Year	CPI / %
Post Graduation	IIT Bombay	IIT Bombay	2012	7.95
Undergraduate Specialization: Computer Science & Engineering				
Graduation	Anna University	Anand Institute of Higher Technology	2009	70.00
Intermediate/+2	Tamilnadu State Board	Alpha Matriculation Higher Secondary School	2005	90.58
Matriculation	Tamilnadu Matriculation Board	Sree Sankara Bala Vidyalaya	2003	79.20

Achievements and Accomplishments

- Ranked 50 in Level-III national level **Maths Olympiad**

- Developed www.freeplacementpapers.com, one of **India's topmost** non-commercial websites with more than **5 million hits**

- Built IIT Bombay Administration Portal www.admin.iitb.ac.in from scratch in a **short span of time**

Master's Thesis

Dynamic Allocation of Resources in a Virtualized Cloud Environment
(Guided by Prof. D. B. Phatak) *[May 2011 - Present]*
- Cloud computing is indispensable for every IT organization. Virtualization encapsulates multiple IT resources and provides **maximum resource utilization** without any additional space/cost
- Devised and implemented a **monitoring tool** which profiles CPU and memory utilization, network and disk bandwidth utilization using *Xentop, sar* and linux utilities
- Project aims at designing a **resource provisioning manager** which analyzes the web-server logs along with utilization profile to allocate the resource dynamically based on the workload
- **Tools used :** Xen, Ubuntu, LAMP (Linux, Apache, MySql, PHP)

Notable Academic Projects

Consistency Rationing in Cloud - Pay only when it matters
(Guided by Prof. S. Sudarshan) *[Spring 2010]*
- 14% of internet's top 1 Million websites use *Wordpress* as their publishing tool
- Calculated the performance improvement when consistency is divided at the data-level, in PHP/MySQL architecture (Wordpress), through *Apache JMeter*

Www.findtaxi.co.in - Find / Share a nearest taxi in Mumbai
(Guided by Prof. Anirudha Joshi) *[Autumn 2010]*
- Conceptualized an **Android** application which finds the nearest taxi from current location of the commuter using GPS and **GoogleMaps API**. Realtime position of the taxi is updated by GPS signals from Android and this project facilitates Taxi-sharing between commuters
- Overcame latest TRAI's rules on SMS limits, by integrating the application with an external SMS gateway to send/receive realtime updates

Scalability Testing of LMS
(R & D Project guided by Prof. D. B. Phatak) *[Autumn 2010]*
- Computed the throughput of each operation like posting on news forums, attempting a question in a quiz, searching for information for a typical online classroom environment
- Identified the resource intensive operations and modified the source code of a well known open-source Learning Management System (LMS) - Moodle and reduced the latency by 33%

BioVision Hierarchy (BVH) player using OpenGL
(Guided by Prof. Parag Chaudhuri) *[Spring 2010]*
- BVH is one of best Motion capture data file format known for its compactness, simplicity and readability
- Built a sophisticated player using **OpenGL in C++**, added basic functionalities like play, pause, resume and some additional functionalities like controlling the speed, moving the camera and introducing a surface

Human friendly sitemap generator for a website

(Guided by Prof. Siva Kumar) [*Autumn 2009*]

Remodeled the traditional sitemap(which is meant for search engines) to show human-friendly graphical icons next to each link so as to give a better overall structure of the site. Implemented Sitemap generator in *PHP*

Areas of Interest

Cloud Computing, Virtualization, Databases, Web-programming, Android and OpenGL

Graduate Courses Taken

Implementation techniques in RDBMS, Advanced DBMS, Human Computer Interaction, Advanced Computer Graphics, Advanced Computer Architecture, Information Technology Project Management, Consumer Psychology

Works done for Graduate Assistantship

IIT Bombay ERP's Payroll management system(EIS)
- Studied the way IIT Bombay ERP's payroll management works through interactions with IITB Admin staffs and with the creators of IITB Payroll system
- Developed a module which facilitates the moderation of corrections on Dependent, Personal, Qualification, Leave and Service-book information of IITB employees are moderated and verified at various levels of Administration section before updating the service-book
- Module fulfilled the mandatory Audit requirement for IIT Bombay Administration Section

Library Management System of IIT Bombay(Libsuite)
- Programmed the *Stock verification* module in the existing Library management system of IIT Bombay which stores more than **4,27,000 volumes of books, journals, and theses**
- Improved the navigation system in Libsuite on the basis of user level, its permissions and functions

IIT Bombay miniCRM
- Built a *miniCRM with Project Management* which involves progress reporting, bugs and issue management
- Facilitated effective communication between various teams involved in building a project

Positions of Responsibility

Administrator, IIT Bombay Learning Management System (Moodle) [*June 2010 - Present*]
- Responsible for maintaining IITB's centralized study resources archival system and providing virtual learning environment for the vast user base of **9000 students and 900 faculty members**
- Tailored Moodle for IITB specific needs and integrated it with IIT Bombay's academic system
- Synchronously maintain Moodle with the latest Academic policy updates by Dean and Student representatives

Institute Representative, IIT Bombay Biometrics Governing Body [*June 2011 - Present*]
- One of the 5 representatives of the institute (IITB) for deciding and framing software & functional policies and implementation plans for Biometric systems
- Leading the team designing the Biometric software, which is in accordance with institute's attendance policies

Software Skills

Programming Languages	:	C, C++, Core Java, PHP, Bash Scripting
Systems / APIs	:	Android, Drupal, Wordpress, OpenGL
Tools	:	LATEX, PhpMyadmin, PgAdmin, Aqua data studio
ERP / CRM	:	sugarCRM and webERP
Database	:	MySql, Postgres, Oracle
IDEs	:	Netbeans, Eclipse
Other tools	:	Google webmaster tools, Google Analytics, Google Adsense

Co-curricular and Extra curricular Activities

- First prize - Technical quiz at **National level** Technical Symposium organized by Jeppiaar Engg College (2006)
- Runner up - Group Dance in Excelsior 08 organized by Jerusalem College of Engineering (2008)
- Competitive Athlete. **Won medals** in 100m, 200m, and Long jump (2002-03)
- Ranked 8 in Chennai district Chess tournament and school **Chess champion** for 3 consecutive years (2000-03)
- Good writer. Article titled "My Dream 2000" was **awarded national prize** (2000)
- **Hobbies** : Rubik cube (3x3), Juggling (3 balls), Puzzles, Rifle & Pistol shooting (10m)