

EDUCATION

2006-10	B. Tech in Information Technology	NIT Patna	8.53/10
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WORK EXPERIENCE

Samsung R&D Institute India – Bangalore (*SRI-Bangalore*)

Android Developer *December 2010 – Present*

Android application, protocol stacks(connectivity module) and framework development.

COMPUTING SKILLS

- **Platforms:** Android, Linux, MS Windows
- **Languages:** Java, C++, C and C#, VB.NET, ActionScript, SQL
- **Scripting/Markup:** HTML, XML/XSL, JavaScript, CSS, Ajax, Bash, LaTeX
- **Softwares:** Eclipse, Visual Studio, My/MS-SQL, Adobe Flex, Git, Source Insight

PROJECTS/INTERNSHIP

- **Natural Language Command and Query System For Mobile Devices** *SRI-Bangalore*
This system takes generic sentence commands as input and outputs translated action in the form of method/argument calls. The application can also be trained to learn new types of command-action instances and add into its knowledge base. This context free command-response automation tool was built using Java and Python.
- **High Level SDK for BLE Developers** *SRI-Bangalore*
Wrote this Android/Java SDK for developers building Bluetooth Low Energy apps for Android devices. Developed along with underlying framework API and some SDK-demo apps for various BLE profiles e.g. *Health Device Profile, Alert Notification Service* etc.
- **OBEX 2.0 Upgrade/Implementation for Android** *SRI-Bangalore*
Implemented and upgraded *Object EXchange*(OBEX) for Samsung Android Bluetooth for use in profiles like *OPP, PBAP, FTP* etc. Developed and demoed the primary new feature of session management where the data transfer over OBEX can be suspended/resumed.
- **Child Tracker Maps/GPS Application** *SRI-Bangalore*
This android application tracks a child's itinerary fixed by a parent and based upon GPS/Google Maps data it alerts the parent's number by SMS in the event of a significant deviation. Implemented accuracy check algorithm and deviation from the pre-planned path.
- **Bluetooth FTP Application** *SRI-Bangalore*
Implemented *Bluetooth File Transfer Profile* (FTP) for Samsung Android phone. Developing UI, application and framework implementation over open source BlueZ stack. The app can be used to browse/pull/push any files/folders on remote (supported) Bluetooth device.
- **Bluetooth HDP JNI Implementation** *SRI-Bangalore*
Implemented *Bluetooth Health Device Profile* (HDP) JNI layer for Android Bluetooth framework using Android NDK. JNI layer is used as a bridge for communication between native and framework/Java code.
- **Android OS Upgrade Work** *SRI-Bangalore*
Worked on Android upgrade for various versions(recently 4.2 to 4.3) which involved work in Java in Application/Framework and in C/C++ at stack level, mainly involving stabilization of already developed modules, developing new features and newly supported standards.

- **Application for DASH7 Stack API & Presentation** (*Preliminary Report*) SRI-Bangalore
Developed test app to demonstrate API access to DASH7 open source stack and also prepared a technical report for preliminary investigation of this upcoming low energy wireless technology
- **Live Online Banking Application** (*Training Case Study*) SRI-Bangalore
Developed a live/dummy banking application on ASP.NET using VB.NET, MS SQL, XML and Ajax/jQuery having features like account management, transactions, logs, session & user/access management etc. Successfully demonstrated practical online banking use cases.

ACADEMIC WORK

- **Desktop Application Interface to Twitter** (*Summer Internship*) NITK Surathkal
Guide: Prof. (Dr) Prakash S Raghavendra May -July 2009
Developed a desktop application as an interface to Twitter.com REST API. The application performs Twitter API functions like Update, Reply, Direct Message, Retweet, Search etc. Presented a technical report on this developed project along with study and analysis of Representational state transfer (REST).
- **Barcode Generator** (*8th semester project*) NIT Patna
Guide: Asst. Prof. Prabhat Kumar January-April 2010
Developed using C# on MonoDevelop, an application that takes a string as input and outputs barcodes of various standards as images, with an option to save and load as XML.
- **Secure Text Steganography** (*7th semester project*) NIT Patna
Guide: Asst. Prof. Prabhat Kumar August-November 2009
This key-protected tool inputs *plain text*, encrypts it by Manchester Encoding with *another text, secret key*; then outputs the *stegano text* and also handles reverse process of decryption.
- **LAMP Server Setup and Implementation** (*6th semester project*) NIT Patna
Guide: Asst. Prof. Prabhat Kumar (IT, NIT Patna) January-May 2008
Designed, set up and demoed a server using redhat, PHP, JavaScript, MySQL, Apache and WebMin etc, comprising of: web/mail server, ftp, telnet, user and disk management etc.

RESEARCH INTERESTS

NLP | Search | Data Science | RIA | Image Analysis

AWARDS/SCHOLASTIC ACHIEVEMENTS

- 'A' grade in Network Management & Ethical Hacking by [Nettech India Ltd.](#)
- Awarded 1st position in NIT Patna cultural fest Melange-09 quiz.
- Finalist in three consecutive finals of national level NIT Patna cultural fest quizzes.
- Achieved 2nd position in my high school in 10th board examination.

EXTRA CURRICULAR ACTIVITIES

- Designed, developed, and maintain my web site at [amark.in](#).
- My open source code at [github.com/amarendra](#)
- Built school alumni website [chinmayasmiles.org](#). Handed over to the management team.
- Acted as the *Mukhyashikhak* (Group Administrator) of morning *shakha* (an organizational node) and as the hostel prefect for three years at my high school boarding school.
- Organized Explorer'08 & college festival quizzes; participated and won in the same earlier.
- Founding member of college Reading Club. I write. I watch films from across the globe.
- I like going places. I'm an avid trekker. I regularly skip town for the woods, trails & beaches.
- I'm a shutterbug. Some of the photos I've taken are at [flickr.com/photos/amarendra](#)