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Experience Summary

Over 11 years of experience in software industry having worked in Samsung R&D Institute India - Bangalore and Comviva Technologies, Bangalore. Currently into academics, working as a lecturer in Department of Computer Application, North Orissa University, Odisha.

	Organization	Duration	Designation
1	North Orissa University	Nov 14 - till date	Lecturer
2	Samsung R&D Institute India - Bangalore	4 Years 10 months (Oct 09 - Nov 14)	Technical Manager
3	Comviva technologies Ltd (Formerly Jataayu Software), Bangalore	6 Years 1 month (Sep 03- Sep 09)	Lead Engineer

Education: Master in Computer Application (MCA), 2003 (Topper), Berhampur University, Odisha, India.
Currently pursuing Ph.D. in Computer Science at Berhampur University, Odisha, India.

Work Summary:

Desktop application Development

- PHR/Smart Annual Checkup Client development (Adobe Flex)

Server side development

- Personal Health Record (PHR) server, m-EMR Server (Spring, Hibernate/MyBatis, Oracle/MySQL)
- Mediation Gateway between Jataayu MMSC and Huawei Billing IN (C, Linux)
- Virtual Voucher System (J2EE, JBOSS)

Mobile application development

- Browser development for Samsung Android phones (C++, Android)
- mEMR, sHealth Client development (Android)
- PHR/Smart Annual Checkup Client development (Adobe Flex)
- eBook Reader development (Windows Phone 7)
- JavaScript Engine development (Jataayu Client Framework)
- Webkit Browser Porting (Windows Mobile)
- MMS Client development (Windows Phone 7, Brew, iWow)
- Email Client development (BrewMP)
- SyncML Device Management Client (Jataayu Client Framework, Windows Mobile)
- SyncML Data Sync Client (Jataayu Client Framework, Windows Mobile, Trolltech Qutopia)

SkillSets:

OS/Platforms: Windows, Linux, Windows Mobile, Windows Phone 7, Adobe Flex, Android, BrewMP, Infineon RedArrow ULC, iWow, Trolltech Qtopia
Programming Languages: C, C++, C#, Java, JavaScript, Action Script, PL/SQL
Version Control: CVS, SVN, VSS, Rational Clearcase, Perforce
Enterprise Dev.: J2EE, Spring, Hibernate, MyBatis
Database: Oracle, MySQL
IDEs : Visual Studio, Eclipse, Adobe Flex Builder

Research Publications:

- IEEE - "Estimating Personalized Risk Ranking using Laboratory Test and Medical Knowledge (UMLS)", 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2013
- IEEE – "A Method to Summarize Disease Based Temporal State of Human Organ using Laboratory Test Data and UMLS Knowledge". IEEE BIBE (Bioinformatics and Bio Engineering) 2012

- IEEE – “Automated Knowledge Engineering using Rough Set Approach”. International Conference on Methods and Models in Computer Science (ICM2CS), 2010.
- “Knowledge acquisition under uncertainty through Rough Set”. International Joint Journal Conference in Engineering And Technology (IJJCET),2011.

Research Interests: Recommender Systems, Data mining, Analytics

Achievements

- MCA Topper, Berhampur University, Odisha, India
- Samsung Knight 2011
- First Position in IT Olympiad-2001, Fourth position in IT Olympiad-2002 Conducted by OITS, Odisha.
- Gold Medal in All India Essay Competition, 1992, organized by DPS, New Delhi.

Professional Experience and Accomplishments

Project Profile at Samsung R&D Institute India - Bangalore:

1. **Browser in Samsung Android Phones:** Stock Browser based on Webkit and Samsung's Browser for Galaxy S series phones (S4 onwards) which is based on chrome.

Tools: Linux, Android SDK, NDK, Eclipse IDE

Duration: Mar 2013 to Nov 2014

Role:

- Complete ownership of Network and Loader module of Browser
- Leading a team towards of successful commercialization of Browser in flagship models Galaxy Note 3, S5, Note 4 and also in other base models like Galaxy S2, S3, S4 etc.

2. **PHR/Smart Annual Checkup System/:** This project aimed at development of a Smart Annual Checkup system targeted mainly for the hospitals specialized in annual health checkups such as Samsung Medical Center, Korea. Keeping in mind, doctor centric visualization of patient data this system is capable of showing timeline based summary views, demography, investigations, patient population statistics with 2D/3D charts along with complex plots like Scatter plots and Box Plots, Risk Index calculation for Coronary Artery Calcification, Similar Patient Search and non-obvious disease prediction visualization on top of a 3D Human body Model.

Client: Samsung Medical Center, Korea

DB: Oracle

Server Tech: J2EE, Spring, Hibernate

Client Platform: Adobe AIR, Android

Tools: Adobe Flash Builder, Oracle SQL Developer

Duration: Mar 2011 to Feb 2013

Role:

- Research, Analysis, Design, Development
- Client side development in Adobe Flex and Android
- Server side development in J2EE with Spring framework and Hibernate as ORM
- Stored procedure developments in Oracle PL/SQL

3. **eBook Reader for Windows Phone 7:** This was an application targeted for Windows Phone 7 marketplace (Samsung zone) which enables user to buy, download and read ebook. Adobe Reader Mobile SDK was ported on Windows phone 7 for rendering the ePub and Pdf contents/ The shopping part of this application was tied up with Kobo (<http://www.kobobooks.com>) which provides a set of web services APIs for discovery, browsing through Kobo book store, rating and buying of eBooks.

Client: Samsung HQ, Korea

Platform: Windows Phone 7

Tools: WP7 Toolchain, Microsoft Expression Blend

Duration: Sep 2010 to Feb 2011

Role:

- Analysis, Design, Development
- Handled Kobo web service consumer development and Certification (onsite – Canada)

4. **MMS Client for Windows Phone 7:** This project attempted at bringing a flashy advanced MMS client for Windows phone 7 which was then still in its CTP version. It's a hybrid application with UI in Silverlight (managed code) and the mms engine in the Native layer (unmanaged code) and a bridge (ComBridge provided by Microsoft to OEMS for building hybrid applications) acting in between.

Client: SK Telecom

Platform: Windows Phone 7

Tools: WP7 CTP, Microsoft Expression Blend

Duration: Feb 2010 to Aug 2010

Role:

- Windows phone 7 knowledge ramp-up
- Analysis, Design, Development
- Leading the team for UI Development

5. **Webkit Browser porting on Windows Mobile:** Dolfin – Samsung's Webkit based browser was ported in Windows mobile platform. The porting involved in the areas of network, graphics, file system, memory and event dispatcher. The UI was development using Samsung XO framework on top of windows mobile 6.5.

Client: Samsung HQ, Korea

Platform: Windows Mobile 6.5

Tools: Visual Studio 2005, Samsung XO framework.

Duration: Oct 2009 to Jan 2010

Role:

- Leading a team of three to develop UI, port various modules
- Performance optimization

Project Profile at Comviva Technologies, Bangalore (Formerly Jataayu software):

6. **Email Client on Brew MP :** This project aimed at developing an email client for HTC "Smart" Device running on BrewMP. The touch-flo platform of HTC extends the Qualcomm BrewMP SDK rev 4.2 with rich user interfaces. This email client supported POP3/IMAP4, SMTP with standard accounts like gmail, yahoo, msn, AOL and other user configured accounts. The UI is developed using Qualcomm's BrewMP standard widgets alongwith customized widgets of HTC and is integrated with JCF (Jataayu Client framework) Email core engine.

Client: HTC

Platform: Brew MP

Tools: Brew MP 1.0 SDK Rev 4.2, QPST, QXDM

Duration: Jan 2009 till Sep 2009

Role:

- Leading a team of four to develop UI, profile and settings modules.
- Analysis, Design, Development.

7. **Porting of SyncML Data Sync Client in Windows Mobile:** This project was about porting the Jataayu SyncML Data Sync Client to the Windows Mobile Platform. It supported various PIM synchronizations such as Contacts, Calendar, Tasks, and Notes etc. This client is being tested against Sync servers such as Mobical, Funambol, Compelson, GooSync, Gyb, O-Sync, Jataayu Personal Sync Server etc.

Clients: N/A (Proof of Concept)

Platform: Windows Mobile

Tools: Windows Mobile Professional and Standard SDK

Duration: July 2008 to Dec 2008

Role:

- Lead a team of three.
- Design, Development, Unit Testing and System testing

8. **Porting of SyncML DM Client into Qtopia Platform (GreenPhone):** The Jataayu SyncML Device Management Client was ported in Qtopia Platform (GreenPhone). The DM Client was used to manage the Browser, MMS and IM settings. DM version used was 1.1.2 and the it was tested with the SCTS toolkit.

Client: N/A (Proof of Concept)

Platform: Trolltech Qtopia

Tools: Qtopia GreenPhone SDK v. 4.2

Duration: May 2008 to June 2008

Role:

- Application development using GreenPhone SDK
- Integration with the Browser, MMS, IM Settings

9. **Porting of Browser / MMS Client onto Infineon RedArrow ULC2 platform:** A number of ULC2 (Ultra Low Cost) phones were expected to roll out by several vendors like ZTE, Triones, Bird and iSirius in collaboration with Infineon with WAP browsing and MMS solutions from Jataayu. The JDD(Jataayu Device Dependent) Layer was ported onto the ULC2 platform and integrated with the JCF (Jataayu Client Framework) compliant Browsing and MMS core libraries. The application user interface MMI was developed using the Infineon RedArrow platform. Noticeable work includes stabilization, optimization in the Infineon platform and Jataayu browser/mms core module.

Clients: ZTE, Triones, iSirius, Bird

Platform: Infineon RedArrow ULC2

Tools: RedArrow C166 Compiler, Mobile Analyzer, TRACE32,

Duration: July 2007 to April 2008

Role:

- Development of application using RedArrow MMI
- Integration with the mms/browser core
- Offshore support to Infineon/ZTE/Triones/iSirius/Bird

10. **Customization of Browser(jB5) and MMS Client:** jB5 (the dual Browser) and MMS Client was ported to the iWow platform to enable basic browsing and mms support for TI calypso and TI Locosto target environments.

Client: iWow, Singapore

Platform: iWow+TI-Calypso/TI-Locosto

Tools: cygwin, Riviera tracer

Duration: May 2007 to October 2007

Role:

- Onsite and offshore consultation support to iWow
- Delivery of libraries with respect to target platforms

- 11. Jataayu Script Engine for JB5 aka SPHINX:** jB5, the flagship product of Jataayu, a dual browser capable of rendering html contents is further leveraged by Sphinx, a JavaScript engine. Sphinx is a indigenous script engine designed using JCF which can be ported easily to any platform. The main function of the script engine is to compile the script thereby generating AST(Abstract Syntax Tree) and then interpreting the script in the application context by traversing the AST using various other components such as symbol table, string table, RegExp engine, script common objects, and global application objects. The script engine is integrated with the DOM and BOM of the Browser

Clients: TTPCom, Giant , FoxConn *Standards:* ECMA 262 3rd Edition, OMA-ESMP, JavaScript

Duration: May 2006 to April 2007

Role:

- Spearheaded the script engine design by conceiving the script interpretation algorithm
- Analysis, Design, implementation of Script Interpreter, RegExp engine and Script common objects

- 12. jSyncDSClient (SyncML Data Synchronization Client):** This SyncML OMA DS client was developed on the Smart Phone 2003 platform for various synchronization tasks for Contacts, Tasks, and Calendar applications.

Client: Giant *Platform:* Smart Phone 2003 (Reference platform)

Tools: EVC++ 4.0, Smart Phone 2003 SDK *Duration:* November 2005 to April 2006.

Role:

- Analyze the software requirements for a common SyncML Protocol Engine
- Design and development of the Common SyncML Protocol Engine
- Implementation of SAN and OTA SyncML provisioning.

- 13. jSyncDMClient (SyncML Device Management Client):** This SyncML OMA Device Management client was designed and developed to provide users to easily subscribe to new services by getting dynamically adjusted to changes of different WAP, MMS and other application settings by a Device Management Server.

Client: Giant *Platform:* Smart Phone 2003 (Reference platform)

Tools: EVC++ 4.0, Smart Phone 2003 SDK *Duration:* August 2004 to October 2005

Role:

- Analysis, Design and Development
- Performed IOT during OMA test-fest, Seoul 2005

- 14. Mediation Gateway (Jataayu MMSC & Huawei Billing IN):** Deployed as a component of Jataayu MMSC, this is a multithreaded stand-alone server which mediates between the Jataayu MMSC, and Huawei Billing IN using a proprietary protocol on MMSC side and using CMPP protocol in Huawei Billing IN side.

Client: MTNL, BSNL *Platform:* Linux, Solaris

Tools: gcc, libefence *Duration:* April 2004 to July 2004

Role:

- Complete Analysis, Design and Development
- Assisted TSG for deployment, performed IOT with Huawei Billing IN

- 15. Thin MMS Client in Qualcomm BREW:** This MMS Client was a thin client developed for BREW enabled handsets. This MMS Client works with the Transcoder, which is the broker between the device and the MMSC. The MMS stack operations are entirely handled by Transcoder therefore giving the thin mms client an edge over the clients containing an MMS stack.

Client: Tata Tele Services Ltd (TTSL) *Platform:* BREW (Kyocera KX434 & LG VX6000)

Tools: BREW SDK 2.1.1, Jataayu MMS Transcoder *Duration:* Jan 2004 to March 2004

Role: Requirement Analysis, Preparation of SRS, Coding and Unit Testing

- 16. Virtual Voucher System:** ORGA Virtual Voucher System replaced the traditional scratch pad based Voucher model and IVR interfaces by allowing the Dealer to request a 'virtual voucher'(short numeric sequence) using a mobile phone.

Client: Orga Systems GmbH *Framework:* J2EE

Tools: JDK (1.4), MySQL, JBOSS, Apache Ant *Duration:* Sep 2003 to Dec 2003

Role: Coding and unit testing

- 17. Web Services for an Enterprise:** The project was aimed at developing web services for an enterprise. The project being a part of R&D of Jataayu software consists of two setups, one to set up a private UDDI registry and the other to expose certain web services. The web service developed was a simple service named Send SMS using which any user can send SMS to any mobile in India from a browser or any suitable method of invoking web services.

Client: (N/A in house project)

Tools: WASP UDDI from Systinet, Push Library for SS Gateway of Jataayu, Apache Ant

Duration: April 2003 to July 2003

Role: All phases of SDLC.

Personal Details

Father's Name: Gopabandhu Bissoyi
Gender/Marital Status: Male/Married
Languages Known: English, Hindi, and Odia
Hobbies: Music, Poetry, Reading.
LinkedIn: <http://in.linkedin.com/pub/swarupananda-bissoyi/49/940/90a>
Facebook: <https://www.facebook.com/bissoyi>