

# PUNEET SINGH



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## OBJECTIVE

Seeking a challenging position in Information Technology, providing opportunities for professional growth and advancement, where I can utilize my experience and acquired skills toward becoming a valuable team member.

## PROFILE

- Thorough, accurate & disciplined individual with an MCA degree from Management Education & Research Institute, IP University, New Delhi.
- Professional experience of more than 9+ years in projects related to wireless technologies. Currently working as a Technical Lead in Aricent.
- Extensive project experience during my professional and academic career which thorough grasp on programming languages, databases, operating systems, telecom and web development tools.
- Analytical thinker consistently resolving ongoing issues often called upon to consult on problems that have eluded resolution by others.
- Above average communication and relationship management skills, quick to adjust to new situations and the ability to work comfortably under constant deadline pressure.
- Self- starter with ability to participate in a team setting and decision-making environment.

## PROFESSIONAL EXPERTISE

SKILL TYPE	SKILL NAME
Wireless Technology	GSM, GPRS, EGPRS (EDGE), EGPRS2, 3G, LTE
Protocols	RLC, MAC, BSSGP, GMM, LLC, SNDSCP, SCTP, SCCP
Programming Language	C, C++, Visual Basic 6.0., Java, Perl
Web Tools	HTML 4, PHP4, PHP5, AJAX, XML, CSS, JavaScript, Wordpress
Back end tools	MS Access, MYSQL, MS-SQL
Operating System	DOS, Windows 9x/2000/XP, UNIX
Configuration Management	Clearcase, Clearquest
Tools/Frameworks	Abis Interface Analyzer (Nethawk and Wireshark), QXDM, Signal Generator, BSC Interface (HIT), Source Insight, OFL, Static Analyzer (Coverity), Run time Analyzer (RTRT), Trace32
Hardware	Assembling and troubleshooting PC
Specification	GSM, GPRS and LTE related 3GPP Specifications.

## PROFESSIONAL EXPERIENCE

Working in Aricent Technologies Holding Ltd, Gurgaon (<http://www.aricent.com>) from Jan 2007 - Till Date  
Worked with Value- One Infotech Pvt Ltd, New Delhi (<http://www.value-one.com>) from Jan 2006 to Dec 2006

## INTERNATIONAL EXPERIENCE

- 3 years at Samsung, Suwon, South Korea  
Responsibilities include:

- Requirement analysis of the Samsung BTS/BSc- GSM/GPRS features to derive test case & plan.
  - Validation of GSM and GPRS features and interaction with customers on daily basis.
  - Conduct reviews of test strategy, test cases & test plans with Samsung Validation Team and Operators
  - Conduct User Acceptance Tests with Operator for which Samsung BTS is to be deployed.
  - Deploy the products and solutions to the Operator's network.
  - Execution of defined test plans in the lab setup and in the field.
  - Interface with third party vendors for facilitating on time testing.
  - Provide support to problems in the field/Operator's network.
- 1 month at Motorola, Swindon, United Kingdom
- Responsibilities included Integration of Motorola BTS with NSN BSC with other Network elements and agreement on the requirements proposals and change requests.

## ACHIEVEMENTS / AWARDS

- Awarded **Team award** for successful completion of Packet Abis project on time in Aricent, Gurgaon.
- **Best Technical Project Award** for developing the Project with no bugs/issues reported from Customer.
- Received "**Team Award**" for the commitment and excellence in analysis, debugging and fixing of critical bugs in Cabis Project.
- Appreciated by Samsung client on being focused on the deliverables and being a single point of contact while communicating with customers and operator wrt to Samsung BTS/BSC.
- Won 1st prize at IT Quiz held in Management Education & Research Institute.
- Won 1st prize at "IT Beyond 2050" Competition held in College.
- Won 2nd prize at Horizon Programming Competition held in GTBIT.
- Has been a college topper in the Year 2005 with an aggregate of 84%.
- Participated in Catechize quiz competition.
- Participated in Neo Logic Speed Programming Competition.
- Participated in Technical Quiz Competition held at GTBIT.

## PROJECT HANDLED

*Projects handled during my tenure:*

### Project 1

Title	<b>Samsung BTS/BSC development and validation</b> (In Samsung Korea)
Technology and Tools	C, Unix, clearquest, GSM, GPRS, 3G, SCCP, SCTP, RLC, MAC, LLC, BSSGP, Um(Air) Interface, Abis Interface, A interface, Gb Interface, GVIM, Wireshark, QXDM
Duration	August 2012, - Till date
Team Strength	300+
<p>Brief Synopsis:            Samsung BSS provide a 2G/3G/4G cross platform capability for the entire telecom operator. It has the capability to handle all generation of networks with just a change of software. Samsung BSS supports TDM and IP based Abis/A and Gb interface. All the BTS and BSC are connected through the centralized server EMS which gives the operator the graphical user interface for handling multiple BTSs and BSCs.</p>	
<p>Responsibilities:            I was responsible for the following:</p> <ul style="list-style-type: none"> <li>• <b>Validation of feature GSM Full Rate / GSM Half Rate / AMR Full Rate / AMR Half Rate</b> <ul style="list-style-type: none"> <li>▪ Requirement analysis of the Samsung BTS/BSC/CN GSM and AMR FR/HR features to derive test case &amp; plan design.</li> <li>▪ Prepare lab test bed setup for integration testing using Samsung BTS, BSC, Mobile phones and test equipments like TEMS, Nethawk analyzer, Signal generators etc.</li> <li>▪ Troubleshoot problems in the lab and in the field using tools such as WireShark, Nethawk analyzer, TEMS etc.</li> <li>▪ Define test strategy, test coverage, test cases, test plans for IOT.</li> </ul> </li> <li>• <b>Validation of Emergency call/Flexible SDCCH allocation / Combined CCCH+SDCCH Features</b> <ul style="list-style-type: none"> <li>▪ Understanding Customer requirements from Requirement Specification and acceptance /rejection of requirements</li> <li>▪ Involved in preparation of new design proposals and effort estimation</li> </ul> </li> </ul>	

- Review and Feedback for SI / SVT testcase design.
  - Report bug to the correct development person with the description of exact test scenario and the problem.
  - Verifying the feature with respect to 3GPP specifications.
- **Validation of Power Control, Handover Feature / Abis Over IP / Abis Over TDM / Early TCH Assignment**
    - Understanding Customer requirements from Requirement Specification and acceptance /rejection of requirements
    - Involved in preparation of new design proposals and effort estimation
    - Developing scripts to automate the work.
    - Leading the team and solving the issue arises during the development or testing.
    - Provide support to problems in the field/Operator's network
- **Validation of Dynamic UL/DL TBF Management, Extended UL/DL TBF Support / Extended Dynamic Allocation**
    - Coding, Integration and Testing for Application Software Modules.
    - Design of critical module PSW and PDM which handles resources selection and allocation.
    - Review and Feedback for SSI and SI testcases.
    - Deploy the products and solutions to the Operator's network.
    - Awarded Excellence Award for not reported a single issue at customer site.
    - Communication with customer management as and when required.
    - Attend technical meetings with Operator's management/technical staff

## Project 2

Title	<b>Embedded Application Software For NOKIA-PCU</b> (Aricent Technology Holding Ltd, Gurgaon)
Technology and Tools	C, Unix, clearcase, GPRS, RLC, MAC, LLC, BSSGP, Abis Interface, Gb Interface, Visual Studio, Source Insight, Challenger, Holistic Integration Tool (HIT), Nethawk, Wireshark
Duration	August 2007, - August 2012
Team Strength	190

### Brief Synopsis:

NOKIA-PCU aims to provide a future proof platform and capacity for features needed to support Internet and multimedia services. In the first phase the PCU shall implement all the existing GPRS and EGPRS Packet Control Unit functionalities. Within Base Station Sub-system (BSS), Packet Control Unit (PCU) is responsible for providing GPRS services to the mobiles. In Nokia S10 BSC, PCU is supported inside the BSC chassis.

The PCU controls the GPRS radio resources and acts as the key unit in the following procedures:

- GPRS radio resource allocation and management
- GPRS radio connection establishment and management
- Data Transfer
- Coding scheme selection
- PCU statistics

### Responsibilities:

I was responsible for the following:

- **Development of Packet Abis Feature**
  - Coding, Integration and Testing for Application Software Modules.
  - Design of critical module PDM which handles territory procedures, BTS selection and channel allocation.
  - Resolving Memory Leak Issues by code walkthrough and by using static and run time analyzer tools.
  - Writing and executing of UT and SSI test plans.
  - Leading the team and solving the issue arises during the development or testing.
- **Development of Cabis Feature**
  - Understanding Customer requirements from Requirement Specification and acceptance /rejection of requirements
  - Involved in preparation of new design proposals and effort estimation
  - Review and Feedback for SSI and SI testcases.
  - **Integration** of Motorola BTS, NSN BSC and PCU2 in Setups at **Onsite customer site (Motorola, Swindon, UK)**

- Debugging and fixing end to end CS and PS call issues.
  - Problem analysis and bug fixing of SI and Load testcases and issue from customers.
- **Development of EGPRS2 Feature**
    - Understanding Customer requirements from Requirement Specification and acceptance /rejection of requirements
    - Involved in preparation of new design proposals and effort estimation
    - Worked in resource allocation for mobile to perform data transfer and CON RES functionality.
    - Writing and executing of UT and SSI test plans.
    - Developing scripts to automate the work.
    - Leading the team and solving the issue arises during the development or testing.
- **Development of Super Extended Cell Feature**
    - Coding, Integration and Testing for Application Software Modules.
    - Design of critical module PSW and PDM which handles territory procedures, BTS selection and channel allocation.
    - Review and Feedback for SSI and SI testcases.
    - Awarded Excellence Award for not reported a single issue at customer site

### Project 3

Title	<b>BSC-PET</b> (Aricent Technology Pvt Ltd, Gurgaon)
Technology	C, Unix, clearcase, GPRS, GSM
Duration	Jan2007 - July 2007
Team Strength	24
<p>Brief Synopsis:</p> <p>BSC-PET is a Performance Enhancement Tester of BSC. It emulates MS and BTS functionality. Core functionality of BSC-PET is to load the BSC with Max MS doing data transfer. As it is very difficult to test BSC with max real MS and BTS at developing site, this PET emulates complete MS and BTS functionality to load the BSC, and generate throughput and performance statistics.</p>	
<p>Responsibilities:</p> <p>I was responsible for the following:</p> <ul style="list-style-type: none"> <li>▪ Coding, Bug Fixing and Testing for Application Software Modules.</li> <li>▪ Testing of EDA functionality.</li> <li>▪ Writing and executing of Unit test plans</li> <li>▪ Developing scripts to automate the work.</li> </ul>	

### Project 4

Title	e-CRM e11 Helpdesk solution
Technology	PHP, JAVASCRIPT, HTML, MS SQL, MySQL, Oracle8i, Postgres
Duration	March 2006 - December 2006
Team Strength	14
<p>Brief Synopsis:</p> <ul style="list-style-type: none"> <li>• E11 Helpdesk is a web based eCRM product, developed to help organizations provide efficient customer service through Ticket Management System and Self-help.</li> <li>• Service provider and Customer are the two sections which can be configured/ customized as per client's need.</li> </ul>	
<p>Responsibilities:</p> <p>I was responsible for the following:</p> <ul style="list-style-type: none"> <li>• Developing main interface of Application in AJAX.</li> <li>• Inserting, retrieving of data to and from database, developed toolbar.</li> <li>• Automatic record updated after certain period without clicking refresh button.</li> <li>• Handle Admin part of the application</li> </ul>	

### Project 5

Title	E11- mail in AJAX
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Language	PHP, Apache Server, JavaScript, XML, CSS
Duration	1 month
Team Strength	3
Brief Synopsis:	
<ul style="list-style-type: none"> <li>• Mail client is designed for reading and sending e-mails.</li> <li>• Protocol supported by mail client is IMAP and POP3.</li> <li>• User can create &amp; delete mailboxes, send mails with attachment, reply to and forward mails to multiple recipients and set preferences.</li> <li>• It also has features like faster preview of mail body and attachment list, new mail on the fly, quick contact list and live news from BBC server.</li> </ul>	

## **EDUCATIONAL & PROFESSIONAL DEVELOPMENT**

### **MASTER IN COMPUTER APPLICATION**

Management Education & Research Institute, Guru Gobind Singh Indraprastha University, New Delhi (2006)

Percentage: 82 %

### **BACHELOR IN COMPUTER APPLICATION**

M. C. R. P University, Bhopal (2003)

Percentage: 65.87 %

### **Professional Certification**

Zend Certified Engineer (PHP Certification)

## **ADDITIONAL INFORMATION**

Date of Birth      18<sup>th</sup> Feb 1983

Marital Status    Married

Address            JG3/ 14- B Vikas Puri, New Delhi 110018

References        Would be made readily available on request

Date:

Signature