Sonam Agarwal

Education

Bachelor of Technology with specialisation in Computer Science and Engineering, from West Bengal University of Technology, Kolkata, India, completed in 2011.

* Designing a bit level symmetric block cipher having high avalanche effect
* Designing of a New Symmetric Block Cipher (TRIPLE SV) and its efficient hardware realization for FPGA Based Systems.

Thesis

NA

Affiliations

NA

Experience Summary

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| --- | --- | --- |
| Project Title | Areas | Role |
| Kaiser Permanente CS Onelink Prod Support : PTK: ON | Domain: Life Sciences and Healthcare  Technologies: Ab-Initio 2.14, SQL, UNIX , Infosphere Datastage, Java (JDK 1.4)  Tools: IBM Lotus Notes 8, Remedy, ETL Tools, RAD | Team Member |

Areas/Applications

* Business Process Modelling
* Systems mapping with Data Warehousing Concepts
* Planning and Designing
* Activity planning
* Low Level Designing through Ab-Initio tool.
* Requirements Analysis
* Analysis through use cases, impact analysis.
* Enhancement
* Enhancement of applications through Ab-Initio and UNIX Shell Scripting.
* Testing/Maintenance
* Application monitoring and support
* Monitoring of daily, weekly and monthly batch jobs.
* Core maintenance activities including impact analysis, program specifications, coding, unit testing and System Testing
* Change management
* Identify, mitigate and escalation of issues
* Integration Testing and User Acceptance Testing
* Attend review and business meeting.

Administration

* Co-ordinating code migrations to different environments.
* Performance Tuning
* Code reviews
* ETL Troubleshooting

Computers Worked on

|  |  |  |
| --- | --- | --- |
| Computer System | Programming Languages | Special Software |
| Windows2000**/**NT/XP**,**  Unix systems | C, C++,Core Java,  .NET, | ETL Tool – Ab Initio Graphical Development Environment (GDE) – Version 1.14.37 and Co>Operating System Version 2.14, MS Visual Studio, PeopleSoft and DB2 , Infosphere DataStage |
|  |  |  |
|  |  |  |

Career Profile

Since 2011 Tata Consultancy Services

**Project 1**

**Title Kaiser Permanente CS BIO Onelink Support Onsite : Pleasanton**

**Period** March 2014 till date

**Client Name** Kaiser Permanente

**Position** Computer Systems Engineers

**Responsibilities**

* Understanding the Business and Functional Overview of the Application
* Monitoring all jobs in Production Server.
* Investigation and fixing the issues in Testing/Production Environments
* Co-ordination with different team associated with different interfaces
* Prepare and deliver reports on project progress and outstanding issues.
* Ensure quality and timeliness on deliverables.
* Provide Post deployment code Verification
* Working on Enhancements depending on business requirement
* Requirement Study and analysis/estimation
* Code development and Unit testing
* Performing testing in QA environment
* Code deployment activities to production server

**Project**

Kaiser Permanente’s Onelink project primarily deals with the financial data of the organization and utlilizes different ETL tools like AbInitio, Datastage and Informatica to transform the data based on their business requirement to data warehouse. It also uses Java programs in some areas for providing financial translations and file transfers.

Carried out the following activities:

* + Requirement gathering and analysis, effort estimation
  + Unix script development
  + Design, Planning & Development of end-to-end ETL applications
  + ETL performance tuning
  + Test plan development/ Unit testing
  + SIT/UAT Testing performed
  + Execute the test specification, test and log defects/ documentation
  + Production support activities

**Hardware** Desktop PC(WINDOWS)

**Operating System** Unix, Windows

**Languages** Shell Scripting, Oracle PL/SQL, Java

**Special Software** Ab Initio 2.14**,** Peoplesoftand DB2 Database, Remedy, DataStage

Pleasanton, California, USA

**Project 2**

**Title Kaiser Permanente ETL AbInitio Onelink Support Offshore: Kolkata**

**Period** January 2012 till March 2014

**Client Name** Kaiser Permanente

**Position** Computer Systems Engineers

**Responsibilities**

* Understanding the Business and Functional Overview of the Application
* Production Support activities
* Co-ordination with different team associated with different interfaces
* Prepare and deliver reports on project progress and outstanding issues.
* Ensure quality and timeliness on deliverables.
* Provide Post deployment code Verification
* Working on Enhancements depending on client requirement
* Requirement Study and analysis/estimation
* Code development and Unit testing
* Performing different testing in like System Integration, user acceptance, performance testing etc
* Code deployment activities to production server

**Project**

KP launched the OneLink initiative in 2006 to implement the PeopleSoft ERP suite. It has interfaces that use Oracle, DB2, SQL Server, mainframe datasets, and other data stores and provide solutions by installing and utilizing ETL software from Ab-Initio Corporations.

Carried out the following activities:

* + Unix script development
  + Design, Planning & Development of end-to-end ETL applications
  + ETL performance tuning
  + Test plan development
  + Unit Testing the Graphs once development is complete.
  + SIT/UAT Testing performed
  + Execute the test specification, test and log defects.
  + Provided production support

**Hardware** Desktop PC(WINDOWS)

**Operating System** Unix

**Languages** Shell Scripting, Oracle PL/SQL.

**Special Software** Ab Initio 2.14**,** Peoplesoftand DB2 Database, Remedy

Kolkata, India

**Project 3**

**Title Initial Learning Program (ILP)**

**Period** September 2011 to December 2011

**Client Name** TCS Internal

**Position** Trainee

**Responsibilities**

* Learning the basics of Software Engineering, Scheme Programming language, UNIX, Object oriented Programming, , C++, DBMS, RDBMS, ORACLE, and Web designing technologies.
* Attending sessions on Soft skills, English language.
* Completing project on Telecom System which was designed on UNIX platform using pro-c.

**Project**

The Initial Learning Program (ILP) is a Learning program by TCS for its associates. This learning program focuses on self-learning to make the associates a work-place learner.

The ILP program conducted by TCS was divided into two parts. The first part was the learning phase including self learning, sessions by experienced teachers and tests. The second part was the application of the knowledge gather during the learning phase in a Project. The Project was to develop an application to automate the data management process of an integrated telecom company, designed on UNIX platform.

Carried out the following activities:

* Learnt the basics of Software Engineering, Scheme Programming language, UNIX, Object oriented Programming, , C++, DBMS, RDBMS and ORACLE.
* Soft skills Improvement.
* Learnt English as a foreign language.
* Completed project on Telecom System

**Hardware** Desktop PC(WINDOWS)

**Operating System** Windows XP, UNIX,

**Tools & Languages** UNIX Shell scripting and UNIX Tools, C, C++, ORACLE,PL/SQL

**Special Software** Putty, PL/SQL Developer

**Project Location** Kolkata, India.

Training Conducted

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| --- | --- | --- | --- | --- |
| Year | Title | Presented to | Location | Organised by |
| 2014 | AbInitio Tool basic and Project specific Knowledge Transition | TCS Colleagues | Kolkata | TCS |
|  |  |  |  |  |

Training Attended

|  |  |  |  |
| --- | --- | --- | --- |
| Year | Title | Location | Organised by |
| 2014  2013  2013  2012  2012  2012  2012  2012  2012  2012  2012    2012  2012  2011  2010  2010  2009 | **Core Java and advance Java**  **Talk Club Sessions**  **Datastage and Informatica ETL Tools**  **ILT-Business Intelligence Basics**  **ILT-Ab Initio - Introductory Course**  **iOS Application Security Awareness**  **Informatica - PowerCenter**  **Defect Reporting Technique**  **IPR Basic Awareness Session**  **Multi Factor Authentication Basics**  **Radio Frequency Identification (RFID) Technology**  **Unix - An Overview**  **Visual Communication for TCS**  **Linux System Administration**  **.NET Platform and development of a project on Online Shopping Cart.**  **Ethical Hacking and Information Security**  **.NET platform and development of a project on Online Library Management System.** | CA,USA  Kolkata  Kolkata  Kolkata  Kolkata  Kolkata  Kolkata  Kolkata  Kolkata  Kolkata  Kolkata  Kolkata  Kolkata  Kolkata  Kolkata | TCS  TCS  TCS  TCS  TCS  TCS  TCS  TCS  TCS  TCS  TCS  Jadavpur University  IETE    Innobuzz Knowledge Solutions  HP Education India |
|  |  |  |  |

Publications

* “**Triple SV: A Bit Level Symmetric Block Cipher Having High Avalanche Effect**”, co-authored with Rajdeep Chakraborty, Sridipta Misra, Vineet Khemka, Sunit Kr Agarwal, J. K. Mandal , , International Journal of Advanced Computer Science and Applications (IJACSA), Vol. 2, Issue 7, pp 61-68, July 2011.

(Online-http://thesai.org/Downloads/Volume2No7/Paper%209-Triple%20SV%20A%20Bit%20Level%20Symmetric%20Block%20Cipher%20Having%20High%20Avalanche%20Effect.pdf)

* **“Efficient Hardware Realization of Triple Data Encryption Standard Algorithm Using Spartan-3E FPGA”,** co-authored with Rajdeep Chakraborty, Sridipta Misra, Vineet Khemka, Sunit Kr Agarwal, J. K. Mandal , Proceedings of International Conference on Issues and Challenges in Networking, Intelligence and Computing (ICNICT 2011), ISBN – 978-93-81126-27-1, pp 60 – 63, 2nd-3rd September, 2011.

Personal Details

**Date of Birth** July 29, 1989

**Sex**  Female

**Nationality**  Indian

**Marital Status**  Single