**ANIRBAN DAS**

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Solution Architect with 15.6 years of experience with proven ability to conceptualize, build and deploy enterprise level products, interacting with highly distributed engineering teams for delivering large enterprise applications. Ability to extract information from complex gigantic data systems using distributed computing.  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SUMMARY OF BACKGROUND**

* Have strong software product design skills driven by creativity, insight into usability including user interfaces and engineering viability. Expertise in making differentiated software products. Ability to pick up new domains and create products from scratch, driven by breakthrough research, shaped into proper positioning.
* Software product management skills bolstered by expertise in complex algorithms and optimal solutions, envisioning product possibilities and ability to recognize principal challenges and addressing information security concerns.
* Experience in all areas of the software development lifecycle (SDLC) including requirements elicitation, management of non-functional requirements, architecture definition, technology selection, architecture evaluation, architecture collaboration, ownership of big-picture, high level & low level design.
* Strong domain knowledge in the area of image & signal processing, artificial intelligence, pattern recognition, neuro-fuzzy frameworks, distributed computing, compiler designs. Cryptography, VLSI, Networking.
* Effective Decision Making and taking care of end to end product delivery.
* Experience in all project management knowledge areas. Adept at project planning, scope management, identification of risks and tracking, project schedule and cost management. Expertise in schedule compression and cost control techniques.
* Engaged in co-ordination with legal compliance, and pre-sales team.
* Hiring, mentoring team members on regular basis.
* Consensus-builder among diverse groups of stakeholders for scope definition and issue resolution.
* Proficient in handling projects with enterprise-wide stakeholders, vendors, and external clients.
* Accomplished at leading efforts to translate business requirements into system solutions fully integrated with business processes.
* Focused on effective reuse and implementing /demonstrating organizational community best practices and models.
* Published 6 international papers including 3 in IEEE & Elsevier journals. Applied for 2 patents.

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**SKILLS & EXPERIENCE SUMMARY**

**Managerial Skills:**

* Being involved in a project from evaluation, conception and completion.
* Ability to provide leadership, motivation and strategic direction to a multifaceted team.
* Excellent interpersonal, collaboration, and problem solving skills combined with excellent written and verbal communication skills. Experienced in crowd-sourcing, organizing hackathons.
* Strong understanding of agile software development, SDLC and Business Analysis practices.
* Proven ability to achieve results in crisis situations & high-pressure environments and to keep teams motivated.
* Knowledge of international business management practices.

**Technical Skills:**

**Research / Prototype building/Optimization**: Mathematica, MATLAB & SIMULINK, LINDO, GAMS, GINO.

**Architecture**: Model-View-Controller, N-Tier, Client-Server, Event driven, Service Oriented, Real-time Systems,

Design Patterns, Rule based, Modular, Zachman Framework, PAAS & SAAS. Distributed Systems.

**Requirements**: DOORS, CaliburRM, Rational Requisite PRO.

**Software Design**: Rational Rose, Microsoft VISIO. Informatica ActiveVOS.

**Programming**: C /C++/C#.Net (WPF/WCF), VB.NET, Perl, XSLT, Lex & YACC, Java, JavaScript, JQuery &

related frameworks (node, express, mongoose/mongodb, angular, D3 etc), COBOL, FORTRAN, LISP.

**Frameworks**: Microsoft Entity, Microsoft Expression, QT.

**Distributed Computing & Analytics**: HADOOP, APACHE-MAHOUT, MongoDB, SAS.

**RDBMS**: MS-SQL, PostgreSQL, MS-Access.

**Verification / Test:** HP TestCenter, QuickTest Professional.

**Build Automation:** InstallShield, ANT.

**Code Quality / Code Coverage:** IBM Rational Purify & PureCoverage, PC-LINT, JS-LINT**,** JLINT, Findbugs, CodeTest

**Configuration**: IBM Rational ClearCase-ClearQuest integrated environment, PVCS, CVS.

**Standards**: DO 178b, DO-278, ISO-9000, SEI-CMM (Level5), Six Sigma & Lean Methodologies.

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| As **Consultant @Management Grade M1** in **Siemens Technology & Services Pvt. Ltd.** (From 7th Jan, 2008 to Till date) | **Work under Digital Factory – Process Industries & Drives group**   * Architect of various solutions in **Network management and Control System (NMCS)** [Technology: C++, SOA] and **SIMATIC Network management server** [Technology: C++. C#.NET, Core Java, JQuery, Event driven architecture] product-lines. Technical management of development of new products – strategy, forecasting & analysis, Collection of requirements and VOC. Provide oversight for IT operations, support desk, and escalated problem resolution. Proven record of delivering on stressful & crisis situations. * Help in building product roadmap and milestones, leading the solution execution strategy, technology evaluation and selection effort. * Pioneered redundant & fault-tolerant architecture in NMCS. * Delivered optimized & performance tuned solutions that helped the product version 11 for monitoring 250 devices improved to monitoring of 50000 devices in version 12. * Designed 200+ new innovative systems with advanced technology utilizing internal resources and third party softwares e.g. automated runtime device profile discovery, license management, brute-force prevention, database password encryption & obfuscation, OpenSSL secured server, reverse proxy, security plug-ins, password strength measurement, user centric secure server overview, prevention of URL obfuscation & phishing attacks, one time passwords (OTP) authentication etc to create differentiated product. * Archive data processing and forensics (identification of failure reasons) using analytics. * Innovation and intellectual property creation, escalation and management (e.g. Protocols fusion strategy / policy by Network Management Systems, Centralized network monitoring with centralized user and view management) * Received project excellence award for a very successful market release of **SIMATIC Network Server V12.** |
| As **Principal Engineer** in **Honeywell Technology Solutions** (11 December 2000 to 4th January, 2008) | **Work under Precision Landing Systems (Business Innovation Center) group**   * Expertise in conceptualizing & delivering end-to-end automation systems. * Received excellence award for the project “**Ground based regional augmentation system”** for best designed process across aerospace**.** Replaced embedded system test environment by simulators by 100%. * Products under supervision and responsible for:  1. Simulators - GRAS/ GBAS Reference receiver (RR) error injector & simulator, Reference receiver data extractor, GRAS receiving station (GRS) simulator, GRAS monitoring station (GMS) simulator, GRAS VDB station (GVS) simulator, GRAS VHF data broadcast (VDB) simulator, 2. Tools - Integrated peer review tool, GRAS procurement tool, Automated design document generation system, automated rule based model beautification system etc.  * [Tehnology: C++ in DEOS, Visual C++, Visual Basic, Visual C#.NET (2005), MaxTech and National Instruments Timer card, Perl, Rational Rose/ VISIO.]   **(Role: Team Lead –Simulators & Tools)**  **Work under Aerospace Electronics Systems Group**   * Received Individual Excellence award for solving complex problems on time in the project **TFE-N1DEEC interpreter.** [Technology: LEX/YACC/Python] **(Role: Project Lead)** * Received 2 partner awards for project innovations (Incorporation of innovative features that helped users) for the project **Design Quality Measurement System. [**Technology: DOORS for requirement management, Crystal ball Developers’ kit, DOORS DXL, .NET development environment.]   **(Role: Project Lead)**   * Won technical excellence award for pioneering high speed ARINC 429 communication, monopole frequency & over-speed detection using enhanced time processing unit (eTPU of MPC5554 processor) for **Small auxiliary power unit controller (SAPUC). [**Technology: C++ in DEOS, Bytecraft eTPU compiler for C++, Ashware eTPU simulator, Real Time Architecture.]  **(Role: Technical Lead)** * End-to-End Automation tool suite in **Electric thrust reverser actuation system (ETRAS)** for A380 airbus –Automated test generation and execution system under SDS simulator where tests are verified against Matlab simulink based requirement models. [Technology: Visual basic add-in, Visual C++ for Excel add-in, and Perl, MATLAB & SIMULINK] **(Role – Development lead)** * Delivered plug-ins for TTP/C, NGC Protocol (Serial Communication), MIL-STD-1553, ARINC-429 drivers for **Honeywell Monitoring & Test station**. Also delivered data monitoring in fast-scan and background modes. In addition, capabilities of basic read/write of symbol(s) and log to file, real time data plot and history log, simultaneous read/write of symbol(s) were delivered. [Technology: Visual C++, Python, modular architecture.] **(Role: Developer)** * Received Pride-Boeing award for producing high quality deliverable for **Environmental control software for Boeing 777. (Role: Developer)** * Delivered **AS900 FADEC engine control system** – An Engine control software for Bombardier   Continental aircraft. [Technology: Diab C++ (Software), SDS Simulator & Debugger, AMC CodeTEST, MATLAB, SIMULINK, Perl &Visual Basic for automation tools, real-time architecture.] **(Role: Developer)**  **Work under Algorithms Research & Development group (Research & Technology)**   * Achieved multidimensional data fusion of multiple weather radar information (in collaboration with Indian Institute of Science, Bangalore). * Delivered **HiLite** - C#.NET based advanced life cycle tool for automated code and DO178B Level A conforming unit test case generation from MATLAB Simulink control logic diagrams saving 98% of human effort in development and 92% in unit testing. * Paper presented in Shristi -2002: “A proposed atomic proxy crypto-system”. |
| As **Senior Engineer** in **Gemplus India Pvt. Ltd.** (11th Aug 2000 To 11th December, 2000) | **Work under Product Security R&D** **group**  Areas of Research: Advanced Cryptography, Differential power Analysis, Timing Attacks, De-convolution, Smart Card and intranet security, Digital Signal processing.  Internal paper published on:   1. Internal frequency detection using de-convolution technique. 2. Microprocessor (ST-16 family) assembly code reverse engineering using Tsach-Arbel Method. |
| As **Graduate Engineer** in **Larsen & Toubro Ltd** (4th August 1997 to 31 July 1998) | **Work under Plant Engineering** **group**   * Designed and developed Enterprise resource planning (ERP) software for optimal raw material management of glass plants. Improved raw material inventory by 22%. * Designed Database Management system & queries, parameter setting software for optimal usage of power in glass plants. Improved power efficiency by 7%. * Implemented Total quality management for plant control system. Helped to achieve ISO-9000 certification. * Planned, Estimated, scheduled, implemented and tracked 22 KAIZENs. |

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| **ACADEMIC RECORDS, TRAININGS & CERTIFICATIONS** |
| Pursuing **Postgraduate Diploma-International business** **management** from Symbiosis Institute of Distance Learning  **Master of Technology** (Computer Science) from Indian Statistical Institute (2000) **- 72.66%**  **Bachelor in Engineering** (Electrical Engineering) from Bengal Engineering & Science university, 1997- **78.46%**  (Won Pulakesh Prasad Roy Memorial Gold Medal)  **Higher Secondary (Level 10+2)** from West Bengal Council of Higher Secondary Education – **79.9%**  **Madhyamik Exam (Level 10)** from West Bengal Board of Secondary Education **80.1%** |
| **Training Highlights**: **Leadership Training for Software Professionals** from Indian Institute of Management-Bangalore, **Business Continuity Planning** (Honeywell), **Software Architecture** (Siemens). |
| **Certifications Granted:** Six sigma green belt, C++ and Project management (2005) from Brainbench, PMP Certification in Project management from Project Management Institute (2009-2015), IEEE–Certified Software Development Professional (2010-1013), BS7799 for information security. |

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**PUBLICATIONS & INVENTION DISCLOSURES**

**(i)** **International Publications:**

1. IEEE transaction on Neural Networks, Volume: 13 Issue: 2, March 2002

Title: Hough transform network: learning conoidal structures in a connectionist framework.

1. IEEE-IJCNN (International joint conference on Neural Network July 2001)

Title: A neural network for learning Hough transform for conoidal structures.

1. Neurocomputing, Elsevier Science - April 2003

Title: Hough Transform network: a class of networks for identifying parametric structures.

1. International Conference on Management of Globally Distributed Work, 2007.

Title: Risk Analysis and Fuzzy Estimation Model for Addressing Change Requests in Globally Distributed Projects

1. International Conference on Management of Globally Distributed Work, 2007.

Title: An Integrated Framework to Attain Transparency and Control While Managing Globally Distributed Projects

1. Product Development & Management Association (PDMA) India Conference, 2007.

Title: Impact Modeling Technique: A Strategy for Managing Product Development for Developing Country Markets.

**(ii) Patents Filed:**

1. Design quality measurement system.

2. Monitoring of remote network management systems with centralized user administration.