

Abhi Deshmukh

CTO | VP of Product Engineering | Software Development Leader



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Summary

I have proven experience of over **25+ years** in software product development and have delivered delightful client outcomes by creating SaaS and On-Premise products & solutions. I have worked in start-ups and large companies managing geo distributed teams. I have led and managed Lab/Site Operations for **500+ employees**, managed development, QA, DevOps, Security, Implementation, Client Support and Product teams. I have experience in building teams, hiring, improving client satisfaction (NPS), performance and budget management. I have **5 US Patents** in the Cloud, AI domain.

I have product development & engineering management expertise across multiple domains: SaaS (B2B) Application, Machine Learning, Artificial Intelligence, Workflow Automation, IT Infrastructure Monitoring & Management Automation, Portals, OSS/BSS, Network/IT Expense Management, Network Protocol Development, Real-time OS and Embedded Systems.

I have experience working with diverse technology stacks Java Enterprise (J2EE), Spring, Microsoft .NET, Relational and NoSQL databases, REST Web Services, ETL, Business Intelligence, Elastic (ELK), Azure & IBM Cloud Platforms, Open Source software like Apache Tomcat, Kafka, Solr, Hadoop, and UI frameworks like JQuery, Angular and React.

Experience

S

Vice President, Product Engineering

Sakon.com

Aug 2019 - Present

I am responsible for Product Engineering of an award winning SaaS Fintech & Expense Management Platform for Cloud, Network & Telecom Services. The platform automates "Procure to Pay" Workflows across Procurement, Contracts, Inventory Management, Invoice Processing, Budgets, Bill Payment, Savings, Audit and Expense Management processes. This automation helps clients manage their workflows for services like MPLS, SDWAN, Cloud (Azure, AWS, Google, Zoom, etc), Internet, Broadband, Private Line, VOIP, Toll Free, etc.

I am responsible for creating automation that provides deep analytics and insights to clients to understand, manage and transform their technology, communications and cloud services while reducing costs and optimizing performance. This includes spend optimization, savings forecasting, contract management, network transformation, Procurement and spend benchmarking.

My responsibilities include delivery ownership and people management for Development, Quality (automation and manual), DevOps, CI/CD, 24x7 Production Support, Analytics (ETL, Data Warehouse, PowerBI), Security (Sonar, BURP for OWASP, CWE and other vulnerabilities) and Enterprise Integrations (APIs, custom adapters for data ingestion) for the SaaS platform. I also work closely with clients and partners to understand their pain points, design and implement product features and resolve product issues.

Technology Stack – Microsoft .NET, C#, ASP.NET, IIS, Angular, MS-SQL, RabbitMQ, NewRelic, SonarQube, BURP, Git, Azure DevOps, Microsoft SSIS/SSAS, Azure PowerBI, Azure API Gateway, RedGate, Web Services, Postman, Swagger



Program Director

IBM

Jan 2016 - Jul 2019 (3 years 7 months)

I worked for IBM from 2004 - 2019 and during this period I had multiple responsibilities in Engineering, Sales and Management. In my last role at IBM, I worked for IBM's Watson Talent (Kenexa) Division where I was responsible for Development, Services, DevOps and Client Success across the Talent Management Portfolio. I led the creation of Cognitive/AI (Watson Recruitment) solutions to help hiring managers & recruiters identify candidates who are likely to be successful in their roles, if offered a job. This leveraged automated resume and job description parsing, skills and experience matching. NLP, and AutoML to detect job fitment and likelihood of success.

I managed IBM's Vizag Labs as a site & operations leader for the IBM Kenexa Suite of HR automation SaaS Suite for Talent Acquisition & Onboarding, Learning and Employee Engagement. I was responsible for innovation, delivery, employee engagement, developing a deep talent pipeline and creating a culture of innovation. I am also very proud of the work that I led to increase Net Promoter Score (**NPS**) from -51 to 84 in 18 months by focus on product quality, client interactions and faster responses and resolutions.

Technology Stack – RedHat Linux, Java/J2EE, Python, Jupyter, Java, CouchDB (noSQL), DB2, MS-SQL, Git, Maven, Web Services (REST), IBM Cloud Storage, Watson NLP.



Senior Engineering Leader

IBM

Jan 2010 - Mar 2016 (6 years 3 months)

IBM Cloud - OnPrem and PaaS offering for IT Operations Analytics (on IBM Bluemix). This offering was built as a competitor to Elastic Search (ELK), Splunk and LucidWorks - and focussed on deriving insights from metric and log data for IT Operational Excellence.

Technology Stack - Apache - SOLR, Kafka, Spark, Hadoop. Lucene, Java, Node.JS, RedHat Linux, Java/J2EE, Angular, Logstash, Rational.

IBM Commerce Portfolio - Enterprise Marketing Management (**Unica, Tealeaf**) - I led development and product releases across IBM Unica's marketing products including Unica Campaign, Interact, Detect, Marketing Operations, Optimize, eMessage, working with development teams across 3 geographies. I was Engineering Owner for IBM Marketing Operations Product. I worked with several clients (large global banks, Fortune 500 enterprises) for faster adoption of new releases and helped resolving critical issues impacting their usage of IBM Unica.

Technology Stack – J2EE, C++, Boost, MS-SQL, DB2, CSS, Angular, Web Services, Windows OS, RedHat Linux. SonarQube for source code scan (OWASP, CWE)

IBM Digital Business Group (SaaS)– Created Business Support Systems (BSS) for SaaS Products. I led development of software for Customer Trials, Onboarding, Billing, Partner and Subscriber management system for IBM Cloud. This BSS layer today is the core part of IBM Marketplace.

Technology Stack – J2EE , Web Services, DB2, AIX, SAML, Oauth, RedHat Linux

IBM Collaboration (Lotus) - Worked on ISV and third party integrations with IBM Collaboration's LotusLive (email, Web 2.0) SaaS offering for email and web meetings

I also conceived and operationalized 2 **CoEs** (Center of Excellence) to help IBM's business partners (Global System Integrators) and customers with Solutions for IBM Commerce and IBM Collaboration (Lotus) – engaging with hundreds of clients and partners – that allowed IBM to win numerous deals and deliver great business outcomes for its clients.



Country Manager (Sales & Engineering) NoCi SaaS

IBM

Jan 2008 - Jan 2010 (2 years 1 month)

Led Sales, Business Development, Engineering, Customer Support for a SaaS offering for IT Infrastructure Management - Network Operations Center - Integrated (NoCi). NoCi was based on on-premise software offerings, which were made multi-tenant. We also provided IT advisory Services on a quarterly basis - based on the insight and analytics that our tools provide. Our customers loved this because it allowed them to reflect on the improvements that they needed to make in their infrastructure and processes. The advice we provided was data driven and it would always be spot on.

This ITIL compliant offering was also bundled with our on-premise IT management services as a pay per month on-premise software. It was also used as the primary stack for our remote monitoring & management services.

As part of this role, I led my sales and business development to add more than 100+ new logo customers and grew revenues by 3x with an operating margin of 35%.



Engineering Leader

IBM

Sep 2004 - 2008 (4 years)

Led Software Engineering at an IBM subsidiary (Netsol) for IT Infrastructure Management.

Managed product engineering including development, support, documentation for NoCi (Network Operations Center - Inside) - an ITIL based Cloud & OnPrem Infrastructure Management Solution. NoCi was offered on a monthly, quarterly, annual subscription model and was the basis of Netsol's Remote Monitoring SaaS Services for several large customers.

NoCi included SNAPPiMON, coDesk, IPMeter, Asset Manager and CTI solutions. I led the design and architecture of these IT Operation applications. I was responsible for a 80+ member team co-located in Bangalore that was instrumental in creating these solutions - which our customers loved -- because they were easy to use, easy to install and needed inexpensive hardware to run.

The product included SNAPPiMON - an integrated agentless monitoring solution for availability and performance for networks, servers, middleware, etc. while providing event correlation, real time & historical reporting, ability to generate real time alerts and includes a auto discovery and topology engine.

IPMeter used RMON2 and Netflow to monitor IP traffic utilization to identify applications or servers that caused network congestion providing faster root cause analysis for network issues.

coDesk - an ITIL compliant service desk which provides incident, problem and change management capabilities for IT operations combined with a knowledge base, support for service level agreements, integration for incident management with monitoring systems, web and email based call logging, etc.

Asset Manager provided IT asset management capabilities, including hardware & software inventory management, discovery, software license metering. based on a Configuration Management Database (CMDB) for tracking asset ownership & dependencies like maintenance contracts, invoices, warranties that help life cycle management of Assets.

Technology Stack – J2EE , SNMP, MS-SQL, Windows Server OS, Network Sockets, Wireshark, RMON2, ITIL. CMDB, Discovery, Windows, Linux and MacOS APIs



Development Manager

IGATE (now CapGemini)

2003 - 2004 (1 year)

I was responsible for product engineering of a high performance, scalable, metadata based extensible framework for implementing workflow-enabled processes, SLA and metrics based performance analysis and governance, graphical reporting, and customized portals.

This framework has been used as an Integrated Global/Enterprise IT Service Center portal with support for workflow enabled Help Desk (call logging), SLA management, Asset Management, Vendors/ Contracts management, graphical reporting.

The framework was used for real-time, automated SLA/Metrics based governance for a large multi-shift 200+ associate Mortgage Processing operation; as well as Enterprise Performance Management (EPM) Dashboard and reporting.

I was also responsible to motivate, mentor and manage engineering teams for product and software development. Introduced agile software development processes using XP principles, automated testing, pair programming, consensus based designing, refactoring, etc.



Development Lead

Evident Software

1998 - 2003 (5 years)

I worked on Software Design & Development of NetCountant an Enterprise product for Usage Based Chargeback for network data, billing for content delivery networks. Key highlights of my work at this time were the first support of Cisco's Netflow protocol on Unix operating Systems. Working with Netscout on RMON2 protocols and creating algorithms for automated correlation of IP and non IP traffic with servers, applications and users for charge back. Billing projects included billing for dial-up (RADIUS) traffic, CDN (Akamai, Inktomi) traffic and others. I started India Engineering operations in 2002 for Evident, hired developers & testers.



Software Engineer

UPS

Jun 1996 - Jan 1998 (1 year 8 months)

Worked as a software development contractor for UPS Research and Development. At United Parcel Service, I worked on real time application that sorted packages in distribution hubs, by doing optical recognition of a 2D symbology (Maxicode) and 1D symbology (barcode). The application included a camera based reader that was installed on top of fast moving conveyor belts. The application would adjust the camera based on the speed of the conveyor belt and the height of the package. The image from the camera (pixels) would be captured, decoded in less than 200 ms for the address section of the package. This would typically be encoded in the maxicode (1 inch by 1 inch label with 3 concentric circles) and the barcode. The decoding would provide the application with the zip code; which would be matched and checked against a zip-code database. Depending on the match a PLM (sorter) would be instructed to move this package to another conveyor belt or in a sorted bin - from where it would be loaded into UPS trucks waiting at the bays.

One of the output of this application was to populate a large DB2 database that fed into a "cool" application for tracking your package on the web. This web application was of compelling value to UPS customers and was a novelty in the early days of the internet before the .dot com boom in late 90s.

My primary technology stack was VRTX real time operating system, Motorola 68360 boards and a Intel Pentium board bonded over a VME back plane. We of course used "C" for coding and had a great degree of expertise in board support packages, device drivers, etc. I also wrote my first (and only) Windows device drivers during this time.

Software Engineer

Transtream Inc

Nov 1994 – June 1996

Implemented ISDN CCITT protocols for Data Layer (Q.921) and Call Control (Q.931) for a Basic Rate Interface Terminal Adapter. The protocols were implemented in "C" and VxWorks (real time operating systems) for a Motorola 68000 series microcontroller architecture.

Skills: Software Development · Product Development · Embedded Systems · RTOS



Software Engineer

TATA Nelco Limited

Nov 1994 – Nov 1995 (1 year)

I worked on real time, embedded systems in the area of network protocol development. I was responsible for developing a X.25 Packer Assembler Disassembler (PAD). I read the CCITT standards (from the CCITT blue book) and implemented them in C programming language on a 80186 dual boards (16 layers). I implemented the device drivers, Layer 2, Layer 3 and the X.28, 29, 30 standards. This was a 16 port multiplexer and provided 64 Kbps WAN connectivity. I used a real time operating system called ncRTM (which was developed at NCST Mumbai, now CDAC).

Skills

Engineering Management, Product Development, SaaS Application Development, Java and .NET Tech Stack, API Management, Artificial Intelligence (AI), Transformational Leadership, Agile Methodologies , Software Project Management , Software Engineering, Start-ups, Software Development

Patents - United States & Worldwide

1. Consolidating disparate cloud service data and behavior based on trust relationships between cloud services, US Patent 8813205B2 · Issued Aug 19, 2014 - <https://patents.google.com/patent/US8813205B2/>
2. Autonomic discovery and integration of complementary internet services, US Patent 9948731B2 · Issued Apr 17, 2018 - <https://patents.google.com/patent/US20220139246A1/>
3. Real-Time Regulation of Personal Expenditures and Transactions,, US Patent 0572916B2 - Issued Feb 25, 2020 - <https://patents.google.com/patent/US20220139246A1/>
4. Generating and rating user assessments - US Patent 11250719 · Issued Feb 15, 2022 Issued Feb 15, 2022 - <https://patents.google.com/patent/US20220139246A1/>
5. Enhanced survey information synthesis, US20210110415A1 · · Filed Dec 20, 2020 - <https://patents.google.com/patent/US20210110415A1>

Technical Certifications

1. Microsoft Certified – Azure Fundamentals
2. Amazon Web Service Certified Cloud Practioner
3. Blackbot Product Management
4. ITIL® v3 Foundation

Education



Rensselaer Polytechnic Institute (<http://www.rpi.edu>)

Master of Science (MS), Computer Software Engineering



Amravati University (<https://www.sgbau.ac.in>)

Bachelor Of Engineering, Computer Science & Engineering



K J Somaiya Junior College (<https://simsr.somaiya.edu>)

Higher Secondary Certificate