

Sakthikumar Chandrasekaran

Software Developer | Permanent Resident

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SUMMARY

- Results-driven **Software Developer** with over **15+ years of hands-on experience** in software and ERP development for the **Manufacturing, Public Sector** and **Healthcare** domains
- Strong expertise in **ASP.NET Core, C#, SQL Server, and React**, with hands-on experience in system design, full-stack application development, debugging, performance optimization, and system integration
- Proven experience working with **enterprise-grade ERP architecture** and managing the **full Software Development Life Cycle (SDLC)** using Agile methodologies
- Skilled in **database design and optimization** using **SQL Server and Oracle**, with extensive use of **stored procedures**, query tuning, and data integrity best practices
- Experienced in **reporting and data visualization** using **SSRS and Power BI** to support data-driven decision-making
- Recognized for improving performance of a **high-traffic ASP.NET application**, achieving a **30% reduction in load time**
- Passionate about building reliable, maintainable software solutions that combine **engineering principles, DevOps practices, and emerging technologies** to deliver measurable business value
- Experienced in leading **cross-functional development teams** and deploying cloud-based solutions on **Microsoft Azure** with **CI/CD pipelines**, secure architecture, and scalable design principles

EDUCATION

 **University of Alberta**
Edmonton, Canada
⊕ MEng in Engineering Management
⊕ Sep 2020 - Aug 2022
⊕ GPA: 3.5/4.0

 **Pondicherry University**
Chennai, India
⊕ MBA in General
⊕ Jan 2011 - Dec 2013
⊕ CGPA: 7.2/10.0

 **Anna University**
Chennai, India
⊕ BEng in Mechanical Engineering
⊕ May 2004 - Apr 2007
⊕ CGPA: 7.6/10.0

EMPLOYMENT

Manufacturing Engineer - Operations Support
TAQA Drilling Solutions
Nov 2022 to till date | Edmonton, Canada

- Lead a team of 6 developers supporting enterprise manufacturing applications, including CGMS (Cougar Global Management System) and TAQA intranet tools.
- Design, develop, and maintain applications using **.NET (C#), ASP.NET, Blazor, and RESTful APIs**.
- Develop and optimize **SQL Server** databases, stored procedures, and queries to support high-volume operational data.
- Deploy and manage applications in **Microsoft Azure** (App Services, Azure SQL, environment configurations, CI/CD pipelines).
- Integrate cross-functional systems for Engineering, Quality, and Manufacturing to improve workflow automation and data traceability.
- Enhance NCR and ECN processes through system automation, audit logging, and workflow improvements.
- Perform root cause analysis and production issue resolution using SQL diagnostics, application logs, and performance monitoring tools.
- Implement secure coding standards, role-based access control, and Git-based version control with structured code reviews.

SKILLS

• **Language**

- ✚ C#
- ✚ Java
- ✚ VB.net
- ✚ VB 6.0
- ✚ JavaScript

• **Framework**

- ✚ .NET Core
- ✚ ASP.NET Web API
- ✚ .NET Framework
- ✚ ASP.NET

• **Web Technology**

- ✚ ASP.NET MVC
- ✚ HTML5
- ✚ CSS
- ✚ Bootstrap
- ✚ React

• **Database**

- ✚ Microsoft SQL Server
- ✚ MySQL
- ✚ MongoDB
- ✚ PostgreSQL
- ✚ Oracle
- ✚ Microsoft Access

• **Data Visualization**

- ✚ Tableau
- ✚ PowerBI

CERTIFICATIONS

- 📄 ReactJS certification from ComIT
- 📄 Oracle Certified Associate - Java SE 8 Programmer
- 📄 Microsoft Certified Azure Data Fundamentals
- 📄 Microsoft Certified PowerBI Data Analyst
- 📄 Java FullStack Developer Specialization from Coursera
- 📄 Oracle Database SQL Certified Associate

Assistant Manager - Software Customization

Durabuilt Windows and Doors

May 2022 to Oct 2022 | Edmonton, Canada

- Led customization and support of internal ERP and production systems using **.NET (C#), ASP.NET, and SQL Server**.
- Translated business requirements into technical specifications and developed enhancements, APIs, and workflow automations.
- Managed sprint planning, release schedules, and defect tracking using Agile methodology.
- Optimized **SQL queries, stored procedures, and database performance** to improve system responsiveness and data accuracy.
- Conducted code reviews, supported UAT, and implemented version control using **Git** to ensure stable production releases.
- Monitored application performance, troubleshooted production issues, & implemented continuous improvements to reduce downtime and operational bottlenecks.

Team Lead

Congruent Info Tech

Mar 2015 - Nov 2020 | Chennai, India

- Led end-to-end SDLC including business analysis, system design, development, testing, deployment, and maintenance in distributed enterprise environments.
- Designed and developed enterprise applications using **.NET Framework 4.8, C#, WPF, Entity Framework, and SQL Server**.
- Built responsive web applications using **React, JavaScript, HTML, CSS, and MySQL**.
- Engineered and optimized databases with complex **stored procedures, functions, views, triggers, and performance tuning** for high-volume data processing.
- Developed and maintained enterprise reports using **SSRS and Power BI** to support operational and executive decision-making.
- Led Agile development practices including sprint planning, daily scrums, code reviews, and release management.
- Mentored developers enforced coding standards, and improved delivery timelines and system performance.

Software Engineer - CAD Customization

Flowserve Corporation

Aug 2013 to Mar 2015 | Chennai, India

- Developed automation tools using **C#, .NET Framework, and CAD APIs** to generate 2D manufacturing drawings for mechanical seals and pumps.
- Integrated **SolidWorks API** with C# to create 3D assembly models and perform equipment interference checks.
- Customized **Autodesk Inventor** material libraries, templates, BOM, and BOQ generation using .NET-based API development.
- Automated **Bill of Equipment (BOE)** generation in AutoCAD by processing XML data from ProSteel and Advance Steel models.
- Built Windows desktop applications using **WPF, C#, and .NET** to streamline engineering workflows and reduce manual effort.
- Automated engineering calculations using **Excel Interop, VBA, and C#**, improving design accuracy and efficiency.
- Enhanced productivity by developing reusable engineering automation tools aligned with industry standards.

SOFTWARE PROJECTS (Selected)

☑ **Project Name: Midmark Manufacturing System**

Client: Midmark Corporation, Ohio, USA

Description: Led the team of software developers to design and develop a centralized ERP-style manufacturing system to streamline production planning, task scheduling, inventory control, and shop floor visibility across Midmark's global manufacturing units. The system integrated key ERP modules such as Work Order Management, Bill of Materials (BOM), Routing, Resource Allocation, and Shift Scheduling. Real-time dashboards were implemented to monitor production KPIs, identify bottlenecks, and improve on-time delivery metrics.

Key Impact: Improved production scheduling accuracy by 35%. Reduced material wastage and overstocking by integrating dynamic inventory tracking with BOM reconciliation. Increased on-time order fulfillment by 22% through optimized job sequencing and resource planning

Technologies: .NET Framework, C#, ASP.NET MVC, WPF, Entity Framework, SQL Server, SSRS, SharePoint

☑ **Project Name: CAD Automation Tool for Engineering Drawings**

Client Details: Flowserve Corporation, Chennai, India

Project Info: Designed and developed an internal desktop tool that automated the generation of 2D manufacturing drawings and 3D assembly models for mechanical seals and pumps. Integrated with SolidWorks and Autodesk Inventor using .NET-based API programming. The application dynamically created BOMs (Bill of Materials), BOQs (Bill of Quantities), and BOEs (Bill of Equipment) based on part parameters and drawing templates

Key Impact: Reduced drawing preparation time by 70%, improving overall project turnaround. Eliminated manual errors in BOM generation, saving an estimated 1,200 man-hours annually and enhanced accuracy in engineering documentation and reduced rework costs by 15%

Technologies: C#, .NET Framework, SolidWorks API, Autodesk Inventor API, AutoCAD, XML, VBA, WPF

☑ **Project Name: Employee Leave Management System**

Client Details: TechSolutions Inc., USA

Project Info: Developed a cloud-integrated leave management platform with self-service portals for employees, real-time reporting for HR, and Azure AD-based authentication. The application featured leave tracking, policy enforcement, and payroll system integration

Key Impact: Reduced manual leave request handling by 80% and enhanced HR visibility into trends through custom Power BI dashboards

Technologies: ASP.NET Core, C#, SQL Server, Angular, Entity Framework, Azure AD, DevExpress

☑ **Project Name: Telemedicine application**

Client Details: Apollo Hospitals, India

Project Info: Built and deployed a modular telemedicine platform in mid-2016 to support virtual patient consultations during early digital transformation in healthcare. Included EMR integration, doctor search, video calling, appointment scheduling, and secure prescription sharing.

Key Impact: Facilitated over 10,000 consultations within the first year of launch, reducing patient waiting times by 45%.

Technologies: ASP.NET MVC, ASP.NET Web API, jQuery, SQL Server, SignalR, PayPal API

☑ **Project Name: Quickbook - Venue & Ticketing Modernization**

Client Details: Sathyam Groups, India

Project Info: Redesigned a legacy movie ticketing platform into a modern event booking portal tailored for organizers. Introduced responsive design, customizable booking flows, and real-time seat availability. Performed end-to-end revamp including UX audit, wireframing, development, and QA.

Key Impact: Increased user engagement by 60% and reduced event setup time for planners by 46%.

Technologies: ASP.NET Core, C#, SQL Server, Angular, jQuery, Bootstrap, Oracle