Email: sureshkumar.pawar@gmail.com | Portfolio website: https://sureshpawar.net/
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SURESH PAWAR

Digital Transformation | Enterprise Architecture | Software Architecture & Design | AI ML Generative AI | Cloud Architecture | Snowflake | Elastic Stack (ELK) | Technical Blogger

SUMMARY

A Seasoned Technologist and Architect with a distinguished 19-year career in leading architecture, engineering, and technology teams. Expert in driving digital transformation and crafting innovative solutions through strategic technology leadership. Acknowledged as a thought leader in software and cloud architecture, coupled with a flair for emerging technologies. Demonstrates exceptional ability in transforming business requirements into sophisticated technology strategies and tangible solutions.

An Artificial Intelligence, Machine Learning, and Generative AI professional, I possess a dynamic portfolio showcasing extensive projects across key areas such as machine learning, deep learning, natural language processing, and Generative AI. My work encompasses a diverse array of applications, from predictive analytics and classification to sentiment analysis and the development of Search, Q&A chatbots using LLM through techniques like prompt engineering, fine-tuning and Retrieval Augmentation Generation (RAG), leveraging both static and dynamic data to craft cutting-edge Gen AI solutions. Diving into the realms of software architecture, I've honed a robust foundation that significantly enhances my prowess in AI architecture. I navigate the intricacies of projects, from the initial selection of models and specifications to the judicious choice of tech stacks. My expertise extends through the development phase, deployment, scaling, and serving, guaranteeing a seamless integration and performance at every turn.

I stay at the forefront of technological progress by participating in conferences and subscribing to newsletters from leading AI communities, keeping my knowledge fresh in software, AI, and ML. Dedicated to pushing the boundaries of innovation and quality, I immerse myself in hackathons and Kaggle competitions, demonstrating my inventive solutions and technical prowess. Furthermore, I share my expertise and insights with the community through writing blogs, contributing to a culture of knowledge sharing and continuous learning.

To explore my project work and gain a understanding, I invite you to visit my portfolio at
https://sureshpawar.net

✴ Experience Highlights

☑ Advocate of AI-First development, with a deep understanding of software and cloud architecture, as well as AI/ML and Generative AI.

☑ Expert in leveraging open-source technologies, excelling in the creation of well-structured software products through Microservices Architecture, Domain-Driven Design, Event-Driven Reactive Architecture, and Service-Oriented Architecture. Successfully led product initiatives that enhanced reliability, scalability, and customer retention.

☑ Directed the architecture and managed multidisciplinary teams for a pivotal project transitioning our product from Solaris to Linux on a private cloud, achieving substantial cost reductions and minimized risk exposure.

☑ Pioneered innovative features and optimizations in our products, adopting best practices to minimize system downtime and elevate customer satisfaction levels significantly.

☑ Partnered with stakeholders to develop strategic technology roadmaps, aligning technological advancements with business objectives for sustained market leadership.

☑ Engaged in hackathons and Kaggle competitions, blogs writing, as well as conferences focused on software, AI and ML, showcasing innovative solutions and technical skills.

☑ Orchestrated the design and deployment of a comprehensive observability platform for Application Performance Monitoring (APM) using ELK stack and advanced alerting systems, which markedly decreased issue identification and resolution times alongside notable cost savings.

☑ Provided mentorship and guidance to team members, promoting an environment rich in innovation, teamwork, and lifelong learning.

EDUCATION DETAILS

- Post Graduate Program in Artificial Intelligence and Machine Learning from University of Texas at Austin, Texas, USA – In Progress expected in 04/2024.

- Bachelor of Computer Science and Engineering (B.E.) from SSGM College of Engineering Shegaon, Maharashtra, India affiliated to Amravati University, Maharashtra, India - Completion Year, 07/2004

CERTIFICATIONS

☑ Google Cloud Certified Professional Cloud Architect

☑ Google Cloud Certified Professional Machine Learning Engineer

☑ AWS Certified Solutions Architect Associate

☑ AWS Certified Machine Learning Specialty

☑ Certified Generative AI Expert™ by Blockchain Council

☑ Generative AI with Large Learning Models (LLM's) by Deeplearning.ai

☑ The Open Group Architecture Framework TOGAF® 9 Certified Enterprise Architect

☑ Snowflake Certified SnowPro Advanced Architect

☑ Digital Transformation for Technology Leaders

☑ Reactive Architecture Foundations by IBM

TECHNICAL SKILLS

Programming Languages: Java, Python JavaScript, C#

Frameworks: Spring Boot. Spring Cloud, Spring MVC, Spring Web Flow, Spring WebFlux, Spring Data, Spring Security, Spring Batch, Spring IO, Hibernate, JPA, JMS, Struts 1.x, Flask

Web Technologies and SPA Frameworks: Angular, Typescript, Angular JS, React JS, NodeJS, Bootstrap, CSS, Sass

AI/ML/Gen AI:

Mathematics and Statistics: Linear Algebra, Calculus

Frameworks and Libraries: NumPy, Pandas, Seaborn, scikit-learn, Jupyter Notebooks, Keras, TensorFlow, PEFT, Langchain, Vertex AI. PDFMiner, Tabula, Transformers, spaCy, NLTK, Faiss, LlamaIndex, Chroma, PineCone DB's

Exploratory Data Analysis (EDA): Univariate and Bivariate Analysis, Data Preprocessing.

Machine Learning: Linear/Logistic Regression, Decision Tress with Pruning, K-Means Clustering, Model Hyperparameter Tuning using Bagging, Boosting, Grid/Randomized Search, SMOTE.

Deep Learning: Deep Neural Networks, ANN, RNN, CNN, Natural Language Processing, LSTM

Generative AI: LLM proprietary models e.g. Open AI's GPT-3/4, LLM Open-source models from Hugging Face for Question Answering/Text Classification/Tex Generation/Summarization e.g. Dolly, PaLM2, Mistral, BLOOM, BERT, Embedding models e.g. Word2Vec, Open AI Embeddings, LLM

prompt engineering, fine tuning using PEFT, Retrieval Augmented Generation (RAG) with Langchain, Llama Index, Vector DB's, Multimodal Chatbot with Open AI, Langchain Agents, LLM Evaluation with Quantitative/ Qualitative e.g. BLEU, ROUGE, METEOR. Conversational Chat and Search with Vertex AI, Open AI Assistance, Streamlit.

MLOps / LLMOps: Model development to deployment and serving using MLFlow on Databricks, Pipelines and model deployment on Google Vertex AI,

Test Frameworks: JUnit, Mockito, Easy Mock, Karma, Jasmine, Protractor.

Web/Application Servers: Tomcat, Oracle Web Logic, IBM WebSphere

Security: WSO2, SSO SAML, OAuth 2.0, OpenID Connect, Azure AD, JWT

Databases: Oracle, MySQL, Postgres, NoSQL Mongo DB

DevOps Tools: ANT, Maven, Jenkins, SonarQube, CI/CD pipelines, JFrog Artifactory, Octopus Deploy, Docker Containers, Kubernetes

Source Control: Git/Bitbucket, Sub Version (SVN), Clear Case

Middleware's: Apache Kafka, Web Sphere MQ and Message Driven Beans (MDB), Apache QPID, Mule ESB

Cache Frameworks: Redis, HazelCast

Cloud Technologies: AWS, GCP, Elastic Stack (ELK), Snowflake

Operating System: Windows, Linux Ubuntu, CentOS 7**,** Red Hat8

IDE: IntelliJ, PyCharm, WebStorm, VS Code, Eclipse, Visual Studio, Spring Tool Suite

Other Tools: pgAdmin, SQL Developer, draw.io, Postman, Swagger, MS Visio, JIRA, Confluence, SharePoint.

RELEVANT PROJECT EXPERIENCE

UKG Inc. Weston FL, Lowell, MA   12/2021 - Till Date

Employer: UKG Inc.
Projects/Product: Ascentis HCM Suite – HR, Payroll, Talent and WFM
Role: Lead Architect
Responsibilities:

- Responsible as a Lead Architect for all product pillars of Ascentis.
- Work across architects, product owners, engineering leads and scrum teams to provide necessary architecture guidance and technical expertise.
- Successfully led the modernization of legacy desktop applications to web and mobile using microservices architecture.
- Successfully led the migration of products from legacy frameworks, operating systems, on-prem deployments to modern software frameworks, operating systems in cloud.
- Contribute to architect, design, develop, troubleshoot, and debug complex platform, software, and data issues across the enterprise.

- Enhance, design, and develop features for web-based self-service application to be used with HCM full-suite applications.
- Provide technical assistance to junior engineers as subject matter expert in all aspects of back-end.
- Collaborate with product management to determine cost effective solutions for solving existing and future product challenges, develop POC's to help drive architecture for the Product.
- Determine best possible technologies for product initiatives.
- Analyze weak points in current architecture and develop solutions.
- Ensure code quality through design and code reviews.
- Increase technical skills of development organization through training and examples.
- Develop and maintain team level architectural and coding standards.
- Evangelize architecture and coding best practices including TDD.

Business Abstract:

Ascentis offers easy-to-use human capital management, HRIS, online payroll, talent management, recruiting and timekeeping solutions that support greater business efficiency and accuracy.

Tech Stack: JDK 1.8, Spring 4.2.0, Hibernate 4.2.0, JPA 1.7.3, React JS, Angular, Swing, Struts, HTML, JavaScript, CSS, Sass, jQuery v1.10.2, Log4j 1.2.17, JUnit 4.10, Mockito 1.9.0, Maven 3, Git, Tomcat 10, Postgres 9 Unix, Linux Ubuntu. COBOL. C#, .NET, Elastic stack Elastic Search, Logstash, Kibana, Filebeat, Apache Kafka, SSO SAML, OAuth 2.0, JWT.

Ascentis Corporation, Eden Prairie, MN   08/2019 – 12/2021

Employer: Ascentis Corporation, Eden Prairie, MN
Projects/Product: Ascentis HCM and Payroll
Role: Associate Architect
Responsibilities:

- Responsible for acting as a technical leader and mentor for the development organization.
- Develop back-end services to extend and improve functionality, including components and libraries to be used throughout organization.
- Investigate market trends and collaborate with other engineers and product managers in defining future direction of back-end development.
- Enhance, design, and develop features for web-based self-service application to be used with HCM full-suite applications.
- Provide technical assistance to junior engineers as subject matter expert in all aspects of back-end.
- Collaborate with product management to determine cost effective solutions for solving existing and future product challenges.
- Determine best possible technologies for product initiatives.
- Analyze weak points in current architecture and develop solutions.
- Ensure code quality through project and code reviews.
- Increase technical skills of development organization through training and example.
- Develop and maintain team level architectural and coding standards.
- Evangelize coding best practices including TDD.

Ascentis Corporation, Eden Prairie, MN   01/2016 – 08/2019

Employer: Ascentis Corporation, Eden Prairie, MN
Projects/Product: Ascentis HCM and Payroll
Role: Senior Software Engineer
Responsibilities:

- Designing/Coding the new integrations with internal as well as external partner systems.
- Designing/Coding new services in micro services architecture.
- Designing/ Coding new features for the product.
- Analysis / Resolution of products production issues.
- Working with architecture to scale the product applications in the suite.
- Leading and Mentoring team members for technical support.
- Collaborating with partner product teams to deliver integrations.
- Implementing best practices for coding and code reviews, defect tracking.

HTC Global Services Inc, Troy, MI   12/2012 – 12/2015

Clients: University of California, State Farm Insurance
Projects: Environment Health and Safety – Applications Suite, Integrated Customer Platform – Billing and Payments Checkout UI
Role: Technical Consultant
Responsibilities:

- Led the project from conception to deployment, crafting both high-level and detailed designs, and established the application foundation using AngularJS, Spring, Shibboleth Authentication, MySQL, and Tomcat.
- Engineered and integrated SOAP and REST Web Services and implemented rigorous unit testing for both front-end (Grunt, Karma, Jasmine) and back-end (JUnit, Mockito) to ensure quality and performance.
- Managed application deployment across test, stage, and production environments, collaborated for seamless application integration, and maintained project excellence through best coding practices, code reviews, and defect tracking.

Cognizant Technology Solutions, Teaneck, NJ   03/2007 – 11/2012

Clients: Wellington Management Company, Blockbuster Inc, Merc Inc, JPMorgan Chase and Co, Chicago Board Option Exchange
Projects: Vendor Data Framework, Can I Trade and Catie, Appia to QFIX Migration for automated client tool and Performance Driver Development for CBOE trading System
Role: Associate - Projects
Responsibilities

- Served as an onsite coordinator and technical lead, overseeing offshore development teams and spearheading the entire project lifecycle, from requirement gathering to system design, leveraging technologies such as Struts, Spring, and Hibernate.

- Ensured seamless collaboration with offshore teams to deliver high and low-level design implementations, complemented by rigorous project tracking and status reporting to clients.
- Championed code quality through reviews and performance testing, established best practices in documentation, and coordinated integration testing across different groups.

Reliance Info Solutions Private Ltd, Mumbai, India   02/2005 – 03/2007

Employer: Reliance Info Solutions Private Ltd. Reliance Corporate Park, 4 TTC Industrial Area, Thane Belapur Road Ghansoli Navi Mumbai, 400 709 India
Projects: Sales Force Automation, Freight Rate System, Position Tracking and Communication
Role: Software Engineer
Responsibilities

- Spearheaded the project development using JSP and Servlets, Tomcat, Oracle for the web application, and crafted SQL queries alongside JDBC code for robust database interaction.
- Provided comprehensive support for QA and UAT testing phases, culminating in a successful production go-live and ongoing post-production assistance.

ADDITIONAL CERTIFICATIONS AND DIGITAL BADGES

Snowflake SNOWPRO Core Certification

Angular 15

Reactive Architecture Foundations

Mongo DB Basics from Mongo University

Mongo DB for Java Developers from Mongo University

Apache Kafka Series - Learn Apache Kafka for Beginners v2

Apache Kafka Series - Confluent Schema Registry & REST Proxy

Docker Essentials: A Developer Introduction by IBM

Data Science Foundations - Level 1 by IBM

Enterprise Design Thinking Practitioner by IBM