

Sumit Khedkar – Senior Software Engineer | Machine Learning | Data Science | Data Engineering | Microservices | Full Stack Development | AWS | GCP | Agile Transformation | Large Scale Distributed Systems | Critical Thinking | Complex Problem Solving

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GitHub: <https://github.com/srkhedkar>

Medium: <https://sumit-khedkar.medium.com/>

A highly motivated and dynamic Senior Software Engineer with 15 years of extensive leadership and hands-on experience across diverse domains. Expert in architecting and delivering technical solutions for high-volume, highly available systems using microservices architecture and cloud technologies. Proficient in a wide range of programming languages, data science, and machine learning tools.

Key Achievements:

- Led teams in energy demand response management, anomaly detection, recommender systems, data forecasting, and project life cycle management.
- Specialized in architecting high-volume systems using microservices architecture and AWS cloud technologies.
- Proven record in driving projects for scalable solutions with short feedback cycles.
- Strong collaboration with Product Management, Architecture, Development, QA, Technical Publications, and DevOps Teams for timely product releases.

Technical Proficiency:

- Versatile in programming languages: JavaScript, Python, C++.
- Passionate about AI and machine learning, contributing to projects that deliver cutting-edge solutions.
- Published articles on LinkedIn and Medium, some featured on the Data Analytics portal "Analytics Vidhya" with over 5,000 views.
- In-depth understanding of algorithms, programming languages, and emerging technologies.
- Dedication to staying at the forefront of the industry and delivering innovative solutions to complex problems.

Technical Skills:

Data Science Libraries	NumPy, Pandas, SciKit Learn, TensorFlow, Keras, PySpark, Matplotlib
Data Science Tools	Airflow, Qubole, Databricks
Cloud Services	AWS, GCP, AWS Serverless, Lambda, SQS, ECS, DataDog, RDS, DynamoDB, EC2 load balancer, AWS Redshift, Kubernetes, Docker
Languages	Python, C/C++, Java, JavaScript, SQL, JSON
Databases and Tools	MySQL, Oracle 12c, Mongo DB, Postgres, Kafka, AWS redshift
Web Frameworks	Django, Flask, Node.js, React.js, FastAPI, Next.js, Tailwind css
Operating Systems	LINUX, WINDOWS
Code Repository	Git-hub, Perforce
Tools	PyCharm, Anaconda, Eclipse, Visual Studio Code, MS Visual Studio, Jira, Confluence, Jenkins, CircleCI
Testing Tools	Cucumber, Selenium, Junit, Valgrind, Swagger, Postman

Experience:

Organization: Wayfair Inc

Role: Senior Software Engineer (Full Stack), Period: September 2023 – April 2024

Project: Recommender System for Deals and Promotions

Wayfair is an online retailer of furniture and home goods. As an eCommerce company it uses technology to solve business problems, sell products, and deliver catalogs.

- Developed a groundbreaking Recommender System for suppliers, optimizing product offerings and securing lucrative deals.
- Integrated advanced recommendation algorithms including collaborative filtering, content-based filtering, and rule-based models.
- Delivered scalable, data-driven solutions that significantly contributed to business growth.

Key Technologies:

- Tools: Next.js, Tailwind css, Python, PySpark, Databricks, FastAPI, SQL, Postgres, Docker, Kubernetes
- Platforms: Google Cloud Platform (GCP), LINUX

Organization: Uplight Inc

Role: Senior Software Engineer (Full Stack), Period: August 2021 – September 2023

Project: Predictive Energy Demand Modeling and Anomaly Detection System for Residential Customers

- Designed and implemented a robust data processing pipeline using Python, PySpark, and Airflow, showcasing proficiency in cutting-edge technologies.
- Developed AI algorithms for precise energy savings calculations and implemented an anomaly detection system for identifying abnormal electric appliances.
- Architected the entire system on AWS cloud services, leveraging DynamoDB, AWS Redshift, and AWS SQS for optimal performance.
- Developed full-stack features for generating home energy consumption reports using NextJS and Tailwind css.

Key Technologies:

- Tools: Python, PySpark, Databricks, Airflow, Flask, AWS SQS, SQL, Postgres, Docker, DynamoDB, AWS Redshift, boto3, NextJS, Tailwind CSS, Jira
- Platforms: AWS, LINUX

Organization: Siemens Industry Software (R&D)

Role: Senior Software Engineer, Period: October 2010 - January 2021

Project: Product Configuration with AI (Data mining solution)

- Developed a datamining-based product configuration solution using association models.
- Implemented a high-performance recommender system for Teamcenter Product Configurator, leveraging microservices architecture and Django REST framework.
- Delivered a scalable system for personalized product recommendations.

Key Technologies:

- Tools: Python, Django REST framework, Pandas, NumPy, Oracle 12c, AWS EC2, Microservices Architecture

Organization: Persistent Systems

Role: Senior Software Engineer, Period: May 2007 - October 2010

Project: Intuit Quicken

- Led the porting of Intuit Quicken's Rental Property Manager product, integrating it into Quicken 2009. Developed the Rent Center module and a transaction extraction engine for diverse transaction types.
- Initiated the creation of automation testing and code coverage measurement tools for Quicken. Resolved critical printing problems and buffer overflow issues. Conducted analysis of Quicken updates and crash dumps, identifying and fixing issues proactively.

Organization: Tata Consultancy Services

Role: Team Member (Assistant System Engineer), Period: April 2005 - May 2007

Project: National City Corporation

- As Assistant System Engineer at National City Corporation, contributed to the Trust System Replacement (TSR) project, specializing in development on the IBM Mainframe platform.
- Created tools in REXX for internal project use, and developed customized reporting tools as per user specifications.

Education:

- **Master of Technology in Computer Science with specialization in Data Analytics from BITS Pilani (WILP).**
- **B.E in Computer Science Engineering from Amravati, Maharashtra, India.**

Certifications

- **SAFe 4 Practitioner Certification**
- **Professional Scrum Master I**