

Shubham Bakre

Portfolio: shubhambakre.com

Github: github.com/shubhambakre

Email: shubhambakre@gmail.com

Mobile: +1-(480)-334-6945

EDUCATION

- **Masters of Computer Science** Arizona State University; GPA: 3.7/4.0
Aug 2018 – May 2020
Courses: Data Mining, Distributed Database Systems
- **Bachelors of Computer Engineering** PICT, India; GPA: 3.5/4.0
July 2013 – June 2017
Courses: Data Structures, Machine Learning, Networking, Databases
- **Nanodegree, Deep Learning** Udacity
Activities: Built CNNs for image recognition, RNNs for sequence generation, GANs for image generation, and deployed models via web applications.
Projects: Bike-Sharing Prediction, Dog-Breed Classifier, TV Script Generation, Face Generation, Quadcopter Flying Agent

EXPERIENCE

- **Walmart Labs, CA** E-Commerce
Software Engineer 3 Feb 2023 – Present
 - **Replenishment & AI Integration:** Designed and implemented a data platform processing 550 million SKUs, integrating predictive analytics and ML models to optimize inventory forecasting.
 - **Advanced Data Analysis & API Development:** Conducted in-depth analysis using Java, Apache Spark, SQL, and Python (Airflow, GCP) while developing scalable API-driven services with Java Spring Boot.
 - **Database LLM Chatbot Integration:** Developed a natural language database chatbot using Google Vertex AI integrated with an MSSQL Server engine. This solution dynamically transformed user queries into optimized SQL queries executed on BigQuery (e.g., 'What is the top sell item for this quarter?'), returning actionable insights.
- **Choice Hotels, AZ** Hospitality
Software Engineer 2 - Big Data June 2022 – Feb 2023
 - **Data Analytics Platform Enhancement:** Optimized live data streams and analytics using AWS (Airflow, EC2, EMR, Athena) and automated legacy system upgrades for reliability.
- **Early Warning, AZ** Fintech
Software Engineer Feb 2020 – June 2022
 - **Backend Enhancement:** Enhanced the Zelle Payment App backend with Java Spring Boot, Docker, and REST API, processing high-value transactions.
 - **Cloud & AI Integration:** Supported AWS cloud upgrades and implemented a streamlined notification service to enable AI-driven features.
- **American Express, AZ** Fintech
Data Science Intern Aug 2019 – Dec 2019
 - : Developed and automated a machine learning pipeline for credit card offer prediction including data preprocessing, feature engineering, model optimization, and performance reporting.
- **Bank of the West, CA** Fintech
Software Engineer Intern June 2019 – Aug 2019
 - : Created a Java web service for secure data migration to IBM FileNet using SQL and database management best practices.
- **Arizona State University** Tutoring
CSE Tutor Aug 2018 – May 2019
 - : Tutored undergraduates in Data Structures, Algorithms, Programming Languages, and Theory of Computation.
- **Mobiliya Technologies (Now Quest Global)** IT Services
Software Development Engineer Nov 2017 – July 2018
 - : Managed Hadoop clusters and developed ML models to predict customer support call pickup times.

SKILLS SUMMARY

- **AI & Machine Learning:** LLM Technologies, Prompt Engineering, Model Fine-tuning, Agent Architectures, Vector Databases, Knowledge Graphs, AI Observability, TensorFlow, PyTorch, Scikit-learn
- **Languages:** Python, C++, Java, SQL, Scala
- **Frameworks:** Scikit, Spring Boot, Apache Spark, Hadoop
- **Tools:** Docker, GIT, PostgreSQL, MySQL, SQLite
- **Platforms:** Linux, Windows, AWS, GCP

PROJECTS & AI INITIATIVES

- **AI Developer Assistant Prototype:** Developed a prototype integrating LLM prompt engineering, vector databases, and knowledge graphs to assist developers with code suggestions and debugging.
- **LLM Integration & Optimization:** Experimented with state-of-the-art LLM models using prompt optimization and fine-tuning techniques to enhance performance and reliability.