

MADHURA DOLE

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EDUCATION

M.S. Computer Science, University of Texas, Dallas, TX (Concentration: Intelligent Systems [AI/ML]) (GPA: 3.5) May 2018

Relevant Courses: Advanced Machine Learning, Artificial Intelligence, Natural Language Processing.

B.E. in Information Technology, Dr. Babasaheb Ambedkar Marathwada University, India (GPA: 4.0[WES]) May 2013

Relevant Courses: Data Structures & Algorithms, Programming in Java, Object Oriented Programming Systems

WORK EXPERIENCE

Software Engineer II at Chewy Inc.

Nov 2022 - Current

Tech Stack: Python, Postgres, SQLite, AWS, EC2, Lambda, REST APIs, Java, Spring Boot, Splunk, React

- **Designed and developing a workflow orchestration framework** to trigger and monitor simulations via REST APIs, track progress in real-time, and support scheduled simulation runs using cron-based scheduling. Completed requirements gathering, technical design, and currently leading implementation.
- Implemented **Data Modifiers** in the **Order Routing System Simulations (Python)** project, fostering **80% reduction in the manual efforts** spent in modifying system data as per the simulation request.
- Designed and built an **MPS Comparator Tool** to **identify fidelity gaps between production and simulation optimizer input files**.
- Created a comprehensive **monitoring and alerting framework** in Splunk for improved observability and faster defect resolution.
- Integrated Data Science-built optimizer modules into the Order Routing System Simulations infrastructure.
- **Delivered multiple front-end features using Vue.js**, including S3 file upload support and JSON simulation configuration support.

Senior Software Engineer at VISA Inc.

Mar 2020 – Sept 2022

Tech Stack: .NET, C#, REST APIs, Java, MySQL, MS-SQL, DB2, Spring Boot, Kafka, Kubernetes, Grafana, Splunk

- **Technical lead of a team of 2 developers for Payment Controls module** in Digital Wallet project, to synchronize Payment Controls between a Pseudo Account behind the Virtual Account and a Digital Wallet. Tech stack: **.NET/C#, MS-SQL, Kafka, Kubernetes**. **Roles and responsibilities:** Design architect, development lead, QA, production release, support.
- **Built 4 high performance .NET REST APIs (200–400ms average latency)** and **Kafka consumers and producers in C#** to process transaction notification messages; built Grafana Dashboard for Data Visualization and setup critical actionable PromQL alerts.
- Spearheaded **India Data Localization project** for Visa Payment Controls; developed .NET APIs for data storage compliance to store transaction data of Indian Issuers in India Datacenter.
- Implemented a security feature invoice file cleaning in **Visa Payables Automation** using Visa's file sanitization APIs (Java, Spring Boot, MySQL).
- Built Grafana dashboards and Splunk alerts for real-time operational monitoring across key systems.

Product Reliability Engineer at VISA Inc.

Jun 2018 – Feb 2020

Tech Stack: .Net, C#, MS-SQL, WCF, IBM MQ/MSMQ, Windows/Linux

- Designed and built a Windows application (C#, SQL) to update Visa customer card statuses, with alert triggering mechanism on each update. **Reduced incident resolution time by 80%, eliminating manual DML operations.**
- Created tools to automate support tasks, increasing team productivity by **up to 85%**.
- Handled vulnerability remediation in a **24x7 production environment** and led multiple production deployment efforts for Visa's Loyalty and Marketing system.

R & D Programmer, Center for Modelling & Simulation

Aug. 2017 – May 2018

Tech Stack: ML/NLP – Unity, C#, MS HoloLens, Python

- **Co-developed a Question-Answering, Augmented Reality based interface** using Unity and C#, simulating realistic human-machine interactions.
- Co-developed a Recurrent Neural Network composed of POS Tagger, Named Entity Recognizer, and Sentiment Analyzer.
- Implemented a **POS Tagger** using Hidden Markov Models and Rules based approach with 92.67% accuracy.

Software Engineer Intern at VISA Inc.

May – Aug 2017

Tech Stack: Java, J2EE, JSP, MySQL, MS SQL, HTML, CSS, JavaScript

- Developed a Visa internal website to create a Production Server Certificate Dashboard UI.

Senior Software Developer at TATA Consultancy Services

Jul 2013 – Jun 2016

Tech Stack: C#, .NET, MS-SQL, WCF, VB.NET

- Developed a **C# language interpreter** for OTX (ISO specified XML files).
- Led one of four client project modules, serving as the offshore point of contact and mentoring new employees.

- Built several Windows apps for process improvement, using WCF, VB.NET and MS-SQL.
- **Led a 6-member team** to build a Hotel Management website using Java, JDBC, JSP, Servlets, and MVC architecture.
- Responsible for Database design: ER modeling, SQL scripts, triggers, procedures, and constraints.

SKILLS

Languages	: Java, C#, Python, SQL, .NET, jQuery, Spring Boot, JavaScript	Software Tools: IntelliJ MS Visual Studio, MS Team Foundation Server, Unity 3D, Eclipse, Tomcat server, MS-SQL Server Management Studio, Oracle SQL plus, Selenium, NetBeans.
Databases	: PostgreSQL, SQLite, MS-SQL, MySQL, Oracle, NoSQL	Other Tools/Skills: Linux, GIT, Bitbucket, SVN, Tortoise, Kafka,
Cloud/Infra	: AWS (S3, ECS, EC2, SQS, Lambda, Glue), Terraform	Kubernetes, Grafana, Shell Script, Jenkins, JIRA

AWARDS & CERTIFICATES

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| • Above and Beyond Silver Award – Leadership and Collaboration, Visa | August 2021 |
| • Certificate of Completion – Advanced Java and Spring Boot | October 2020 |
| • Above and Beyond Silver Award – Innovation (Pioneering with a Purpose), Visa | January 2019 |
| • Oracle Certified Associate, Java SE 7 Programmer | March 2015 |