

# TUSHAR YADAV

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Open to Relocate

## PROFESSIONAL SUMMARY

### Backend Engineer | AI Enthusiast | Data Engineer | Cloud-Native Problem Solver

Passionate engineer with 4+ years of experience building scalable, high-performance systems across **AWS and Azure**. Skilled in **Python, FastAPI, SQL, distributed architectures, and AI/LLM integration**, with deep expertise in **data pipelines, cloud data lakes, and analytics solutions**. From designing **ETL workflows** to deploying **AI-powered analytics**, I thrive at turning complex data challenges into real-world impact.

## TECHNICAL SKILLS

<b>Programming Languages :-</b>	Python, NodeJS
<b>Cloud &amp; Data Lakes :-</b>	AWS S3, AWS Glue, Amazon Redshift, Azure Data Lake Storage(ADLS), Azure Synapse Analytics, Snowflake, Databricks, Google BigQuery
<b>Databases :-</b>	SQL Server, PostgreSQL, MongoDB, OpenSearch, Cassandra, Redis, Vector DB, OpenSearch, DynamoDB
<b>ETL &amp; Orchestration :-</b>	Apache Airflow, Azure Data Factory, AWS Glue, Serverless Data Pipelines (AWS Lambda)
<b>Data Processing:-</b>	Python (Pandas, NumPy, PySpark) , SQL (Advanced Optimization, Partitioning, indexing), Data Modelling, Performance Tuning
<b>AI/ML :-</b>	Prompt Engineering, LLMs, RAG, Transfer Learning, Deep Learning, NLP
<b>BI &amp; Visualization:-</b>	Power BI, Tableau, Looker

## EXPERIENCE – 4YEARS

<b>Zavvis Technologies Inc.</b> <b>Senior Software Engineer (Finance)</b>	<b>San Jose, CA, United States</b> <b>May 2025 – Present</b>
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- Designed and deployed **financial data pipelines** using Python, SQL, and **AWS Glue** to automate 12-week cash flow forecasting, liquidity risk detection, and CFO-grade analytics stored in **AWS S3 Data Lake**.
- Built **real-time ETL workflows** with Apache Airflow and Pandas to process AR/AP data from multiple sources, loading curated datasets into **Snowflake** and **Amazon Redshift** for BI dashboards.
- Developed an **LLM-powered analytics interface** to parse unstructured CFO queries, retrieve data from Snowflake, and perform **low-latency SQL transformations** for decision-making.
- Integrated **AWS Lambda** for event-driven updates to KPIs visualized in **Power BI and Tableau dashboards**.

<b>Interco</b> <b>Software Developer Intern (Metal Recycling and Sales)</b>	<b>St. Louis, MO, United States</b> <b>May 2024 – August 2024</b>
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- Built a **Python + Pandas data validation framework** to clean ERP usage data before storing in **Azure Data Lake Storage**, reducing processing errors by 20%.
- Designed **FastAPI ingestion endpoints** to capture operational data into **Azure Synapse Analytics** for enterprise-scale analytics and ML workloads.
- Automated ETL pipelines** in Azure Data Factory to refresh datasets in **Snowflake**, improving data availability for analytics.
- Optimized ERP search/reporting with **SQL Server indexing** and **partitioning**, boosting query speeds by 50%.

<b>ITC Infotech (on-site at ZS Associates)</b> <b>Senior Software Engineer (Healthcare and Pharma)</b>	<b>New Delhi, India</b> <b>November 2021 – August 2023</b>
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- Enhanced API performance and scalability by **40%** by engineering **RESTful** services with **Flask, Azure Functions, and API Gateway**, optimizing response times and security.
- Ensured 99.9% uptime and high availability by deploying backend services for web apps using **BitBucket, AWS CodeBuild, CodeDeploy, EC2, and ELB with Flask**, while integrating **CloudWatch** for real-time monitoring and logging.
- Accelerated data processing by **50%** by creating and managing data pipelines with **Azure Data Factory** and Stored Procedures, ensuring seamless data movement from multiple sources to **Azure Synapse** and **Azure SQL Server** with data integrity and performance optimization.
- Strengthened system security and compliance by implementing **OAuth 2.0, Azure AD B2C services, JWT auth, and role-based access control (RBAC)**, mitigating unauthorized access risks.

- Reduced SQL query execution time by **60%** by optimizing complex queries, implementing indexing strategies, and developing **stored procedures in SQL Server**, significantly improving data retrieval efficiency.

**L&T Technology Services**  
**Software Engineer (Oil and Gas)**

**Vadodara, India**  
**May 2019 - November 2021**

- Increased data quality and reliability by **70%** by identifying patterns from unstructured documents and extracting key features using **Natural Language Processing (NLP)**, reducing **manual processing time by 25 hours per week**.
- Improved business strategy effectiveness by **35%** by leveraging **Power BI and advanced SQL queries** to analyze complex datasets in **SQL Server**, integrating **pandas and NumPy** for advanced data processing and actionable insights.
- Achieved **80%** accuracy in statistical analysis by automating **web scraping** using **Selenium**, extracting key features from websites.
- Reduced manual data entry workload by **60%** by executing **tabular data extraction from PDFs** using **PDFMiner, PyPDF2, and OCR**, exporting structured reports to predefined formats, ensuring accuracy and efficiency.

## EDUCATION

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**California State University Fullerton**, USA - **Master** of Science, Computer Science  
**SRM Institute of Science and Technology** - **Bachelor** of Technology, Information Technology

Aug 2023 - May 2025  
June 2015 - May 2019

## RECENT PROJECTS

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- **AI-Powered Interview Coach** - (*WebRTC, MongoDB, Whisper API, Deepsearch, LangChain, GPT-4, OpenSMILE, OpenCV*)  
Designing and developing an AI-powered mock interview coach using FastAPI, OpenAI, RAG, LangChain, and Whisper for real-time speech transcription, NLP-based response evaluation, and tone analysis with OpenSMILE. Built a responsive frontend in Next.js and Tailwind CSS with WebRTC integration for live interview sessions and performance insights.
- **PasteIt – Google Chrome Browser Extension** - *getpasteit.com – (JavaScript/ Next.js)*  
PasteIt is a browser extension that enhances your clipboard functionality. It allows you to store multiple copied items, reorder them, and paste them easily into forms or documents.