

# Shivang Kaul

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## Work Experience

### ZS Associates

Pune

Associate Consultant

July 2022 – Present

#### Centralized Data Repository and Reporting:

- Spearheaded the design, ideation and development of a one stop tool to cater to the financial decision making needs of a **Fortune 10 client**.
- Led a cross-functional **team of 5+ members** for the development and setting up data quality and governance standards for the client's data landscape.
- Designed and implemented a strategy to unify data sources and create a unified pipeline using databricks bringing in data from Salesforce, SAP BW, ADLS, Snowflake and flat files. This also included implementing Data Quality checks to ensure the data is standardized and adheres to the organization wide governance policies.
- Conceptualized and implemented the migration of this tool from a Snowflake environment to an automated ETL pipeline using a combination of Snowflake and Databricks ensuring compliance and security policies are adhered to.
- Within the first month of it's deployment the tool was able to save upwards of **\$ 2 Million** by aiding the audit team.

**Tech Stack:** Azure Data Lake Storage, Snowflake, Databricks, SQL, Python, Pyspark, Azure Data Factory

#### Data Modernization using Data Mesh:

- Conceptualized and implemented various POCs guiding a **Fortune 10 client** on how to modernize their current data landscape and move to a Data Mesh architecture promoting **Data as a first class concern**.
- Spearheaded the design and development for this organizational change and acted as the POC for implementing this at an organisational level.
- Led the change management workstream for this data landscape restructuring which acted as a precursor for several multi-million dollar initiatives with the same client.

**Tech Stack:** Azure Data Lake Storage, Snowflake, Databricks, SQL, Python, Pyspark, Azure Data Factory

Associate

February 2021 – June 2022

#### Proposal Planning Collaborative Tool:

- Designed and developed backend APIs for a Fortune 500 Pharma client's project to build a proposal planning tool.
- The tool aimed to aid in proposal planning by creating a platform for it and helping the user by providing cost and schedule estimation capabilities.
- **Tech Stack:** NodeJS, ExpressJS, PostgreSQL, Pyspark, Databricks, Airflow

#### A solution to Strategize Product Narratives:

- Engineered backend pipelines for an end-to-end solution involving Data Science and Front-end teams.
- The backend acted as a bridge between the model and the Front end solution.
- The solution is aimed at helping capture and report the general narrative in the market for a specific product (drug).

**Tech Stack:** PostgreSQL, Pyspark, Databricks, Airflow

### ZS Associates

Pune

Associate - Intern

August 2020 - January 2021

#### Tool to Identify Duplicate Studies:

- Designed and developed backend pipelines for the tool to identify duplicate studies from the set of studies already present in the database. The incoming studies were checked for similarity with existing studies.
- Performed analysis and created data cleaning pipelines to enable data scientists to develop the NLP solution.
- The solution helped save **500k USD** in costs per year.

## Projects and Publications

### Skin Lesion Detector Using Deep Convolution Networks (Publication)

[Link](#)

- Built a model using deep learning methodologies to categorize skin lesion images into 5 categories based on the severity of skin cancer (benign/malignant) and achieved an accuracy of 92.9%.
- Integrated a module implementing feature extraction for each retinal image using novel image processing techniques like OpenCV and Matplotlib to estimate the extent of the damage for effective diagnosis.
- Presented a paper titled "*Hybrid Application Based Skin Lesion Analyzer Using Deep Neural Networks*" published in the IJPR Journal - Vol 24, Issue 08.

### SRMpedia - Mobile Application

[Link](#)

- Designed and developed a Hybrid mobile application using Ionic Framework and NodeJS to help students settle down on the SRM college campus; Achieved **10,000+ downloads** across Android and iOS devices.
- The initiative was lauded by the Director of the institution and featured on the University's official website.

### Grapido

[Link](#)

- Designed and developed the backend for a seed startup's flagship product - a professional social media application built on the stack - Ionic Framework, NodeJS, MongoDB.
- Assisted in the revamp of the Front end of the app using Ionic.

### **Moodbase - Productivity Tool**

[Link](#)

- Built an open-source productivity tool in React for tracking to-do lists and important tasks on your browser's home page using React.
- The Tool follows standard UX principles and is published on the chrome web store for public use.

### **Intruder Detection**

- Engineered a wireless CCTV intruder detection system as a part of a multidisciplinary team as part of my summer internship at DRDO.
- Designed the system to detect intruders from images captured via the hardware using OpenCV.

### **Education**

**SRM Institute of Science and Technology**

**Chennai**

*B.Tech in Computer Science(CGPA: 9.3)*

*Graduation Date: June 2020*

### **Skills and Interests**

**Programming Languages:** Python, Javascript, C++

**Web Technologies:** HTML, CSS, NodeJS, ExpressJS, ReactJS

**Cloud Services:** AWS EC2, Amazon Redshift, S3, AWS Glue, Azure Storage, Azure Data Factory

**Databases:** MySQL, PostgreSQL, MongoDB

**Tools:** Pyspark, Airflow, Jenkins, Databricks, Snowflake, Git, Postman

**Languages:** English (Professional Proficiency), Hindi (Native)

**Interests:** Reading, Playing the Guitar

### **Accolades and Leadership**

- **ZS Champions Award** - I was awarded the Yearly Project Champion's award for my work in the Product Narratives Medical Affairs Workstream.
- **Dean's Letter of Appreciation:** Awarded a letter of appreciation by the Dean of Engineering of SRM University for developing the SRMpedia app and founding the SRMpedia student club.
- **Best Paper Award:** Received the best paper presentation of the session award at the ICIoT Conference 2020.
- **Volunteer at [Making the Difference NGO](#):** Spearheaded data verification and facilitating the distribution of oxygen cylinders and medicines during the COVID pandemic impacting 1000s of lives.
- **Organizer at Tech Fest (Aaruush):** Coordinated and executed events as part of Digital domain at Aaruush, a renowned SRM tech fest, with a significant footfall of over 10,000 attendees.