# Shreya Savant

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## FDUCATION

## Master of Applied Science - Quality Systems Engineering

**CONCORDIA UNIVERSITY** 

Research Assistant (RA): Artificial Intelligence (AI), Natural Language Processing (NLP) in the CIISE Department

## **Bachelor of Technology - Computer Science and Engineering**

#### D. Y. PATIL COLLEGE OF ENGINEERING AND TECHNOLOGY

Coursework: Data Structures and Algorithms; Operating Systems; Advanced Networking; Big Data Analytics

## WORK EXPERIENCE

## **7DISH** | MACHINE LEARNING INTERN

- Designed and developed a conversational AI interface for seamless product catalogue access using OpenAI's GPT-3.5 and LangChain, resulting in a 30% increase in user engagement, leveraging capabilities of Language Model Models (LLMs)
- Developed and optimized machine learning pipelines using PyTorch, MLflow, and Hydra for efficient training and deployment
- Collaborated with cross-functional teams using Agile methodologies to recognize and address data quality challenges in a large corpus, improving sentence embedding quality and increasing recommendation accuracy by 15%.
- Developed RESTful API endpoints to integrate seamlessly with existing systems, enhancing user experience through efficient database interactions; Technologies: Azure, Databricks, Docker, Git, Python, PySpark

## VISIVE INC. | JR. DATA SCIENCE ENGINEER

- Developed an Image Search system improving precision and user experience using Python and ML framework TensorFlow
- Deployed machine learning models for face recognition, image and video processing, Elastic search, object detection, and Optical Character Recognition (OCR) on Google Cloud, achieving a 20% improvement in accuracy.
- Created ETL pipelines with SQL and PySpark for data management and integration.
- Developed desktop and web applications using Tkinter, Streamlit, and Plotly Dash, deploying with Docker.

#### **PROFCESS** | SOFTWARE ENGINEER INTERN

- Optimized the front-end web app using Bootstrap, HTML, and CSS, resulting in a 20% increase in user engagement.
- Developed a recommendation engine for a human resources platform trained on designation and skills-based trends, improving user satisfaction.

## PROJECTS

## MEMORY MODULE TO IMPROVE LLM AGENTS (THESIS)

Developed an innovative memory module to enhance the performance of LLM agents to enable them to retain and utilize context across interactions, significantly improving the response accuracy and **user experience**. Led extensive research, development, **Prompt Engineering**, and testing to ensure optimal functionality and integration with existing frameworks.

## **SPOKENWEB - RESEARCH ASSISTANT**

Contributed to an SSHRC-CRSH Canada project digitizing literary sound recordings, and collaborating with universities and researchers. Led data ingestion into Apache Solr with Ruby, improving search speed and accuracy by 20%. Managed and optimized Linux servers for Ruby on Rails and Solr, resolved critical bugs and enhanced the user interface improving efficiency

## **AI BASED REFLECTIONS EVALUATOR**

Engaged as a member of a selected cohort tackling an AI in Education Innovation Challenge with industry collaborator Pragmatics Studio. Led the development and design of an NLP evaluation system for student reflections, aiming to provide assessment methods and personalized feedback for academic advancement.

## STUDENT ATTENTIVENESS MONITORING

Developed a real-time classroom student attentiveness monitoring system using a Convolutional Neural Network (CNNs) and OpenCV and TensorFlow leveraging Tesla's 'Driver Drowsiness Detection' data. Deployed on Jetson Nano.

**CIRCULAR ECONOMY - IMPROVING FOOD SECURITY AND CROP YIELD** MATPLOTLIB, SEABORN, PYTHON Developed image processing, and data visualization pipelines for the Remote sensing datasets from Google Earth Engine **URA - ML-BASED WEBAPP TO PREDICT EMPLOYMENT TRENDS** HTML, CSS, BOOTSTRAP, PYTHON, DJANGO Led a team of 4 peers in the development of a web application that predicts job trends based on skills leveraging a Gaussian Naive Bayes-based prediction system to forecast company requirements, providing insights for job seekers and employers

## SKILLS

Languages: Python, Java, C++, C#, Bash, C, SQL Web Development: React, JavaScript, TypeScript, HTML/CSS, Ruby On Rails Technology/Tools: Git, AWS, GCP, Azure, Docker, Databricks, &TFX, Tableau, Power BI, MongoDB, DynamoDB, Neo4j, Blender, Figma

#### PYTHON, LANGCHAIN, LLMS, FLASK, GIT

PYTHON, HUGGINGFACE, OLLAMA

JAVASCRIPT, PYTHON, OPENCV

RUBY ON RAILS, HTML, CSS, JAVASCRIPT, BOOTSTRAP

Pune, MH | Aug 2022 - Dec 2022

Bhopal, MP | Jun 2021 - Jul 2021

Montreal, QC | Jun 2023 - Jan 2024

Montreal, QC | Dec 2024

Kolhapur, MH | May 2022