

# KAUMIL TRIVEDI

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## Education

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### Simon Fraser University

*Professional Master of Science in Computer Science, Big Data Specialization*

**Sep. 2021 Intake**

*Burnaby, BC*

### Gujarat Technological University

*Bachelor of Engineering, Computer Engineering; CGPA: 9.22/10*

**Jul. 2014 – May 2018**

*Gujarat, India*

## Experience

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### Simon Fraser University

*Teaching Assistant*

**Sept. 2021 – Present**

- Currently working for the course CMPT 125 - Introduction to Computer Science and Programming II(Fall 2021). Responsible for grading assignments, assisting students in the tutorials and conducting office hours.

### Data Science and Engineering (Blogging Website)

*Owner and Writer*

**Apr. 2021 – Present**

- Developed a blogging website using Wordpress which documents projects as a series of blogs similar to chapters of a book. Users can follow along with a project to learn about and implement it.

### Freelancer

*Developer*

**Apr. 2021 – Aug. 2021**

- Developed a search engine to import and index data from the O\*NET database to build the backend of a job portal for job seekers. Used Elasticsearch as the engine to search about 100k rows with about 150 features. Used FastAPI for async indexing and Jinja2 as a template engine.
- Developed a system to create question and answer from english corpuses uploaded by the user using a HuggingFace transformer and load the question-answer pair to a backend RDS database.

### Areli Commerce Private Limited (Frendy)

*AI Developer*

**Apr. 2019 – Apr. 2021**

*Gujarat, India*

- Responsible for developing and maintaining a search system using AWS Elasticsearch, handling around 200k queries a month.
- Developed a novel relevance sort algorithm to sort products using custom metrics as required by the business. This was adopted as the default sorting approach of displaying products across the e-commerce site, decreasing the customer attrition.
- Developed a serverless recommender system using the k nearest neighbours algorithm using Flask, AWS Fargate and RDS. Worked alongside the mobile developers to insert event triggers to monitor the health of the application and provide analytical insights.

### Turabit Solutions Private Limited

*AI Developer*

**Jun. 2018 – Mar. 2019**

*Gujarat, India*

- Worked on development of chatbots and developed API to make the chatbot install software applications on target machine as well as schedule the chatbot to perform a certain function at a time selected by the user.
- Trained machine learning models to perform text classification and determine the intent of the user query and trigger the necessary functions required to complete the requested task.

## Projects

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### Data Analysis using Spark and Elasticsearch | *Python, Nifi, Docker, Spark, Elasticsearch* **Apr. 2021 – May. 2021**

- Created a data pipeline to ingest New York accident data using Apache Nifi and save it to HDFS and later transform and analyze the data using Apache Spark.
- Wrapped the entire workflow using docker containers and worked on storing the data in Elasticsearch and create dashboards using Kibana.

**Blogging Website** 🌐 | *Python, Flask, SQLAlchemy, Elasticsearch, Heroku* **Jul. 2020 – Aug. 2020**

- Created a blogging website using Flask framework as well as used SQLAlchemy for building relationships and CRUD operations. Established a mechanism for a user to follow different people and have the posts of the followed people on the home page.
- Established an “Explore” feature where a user can explore different posts from all the users on the website in a descending order of the post timestamp. Established a “Search” feature using Elasticsearch where people can search for a keyword and have relevant posts displayed. Deployed on Heroku using PostgresDB and Searchbox ES add-ons.

**Emof\_AI** 🌐 | *Python, Flask, Tensorflow, Jinja2* **Jan. 2018 – Mar. 2018**

- Trained a convolutional neural network to capture faces in a video stream and detect the emotion, gender and age group of the person.
- Developed a data analytics graph capturing the demographics of the proportions of the emotions in the video, grouped by age and gender. Wrapped the entire workflow with a Flask API and used Jinja2 as a templating engine.

## Publications

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**A Hybrid Binary Classifier for Pattern Classification** 🌐 **Sep. 2019**

*IEEE 5th International Conference of Data Science and Engineering(ICDSE)* *IIT Patna, India*

- Developed and presented a hybrid classifier model combining a decision tree with support vector machine. The resultant model had better accuracy and easy interpretability. Tested the hybrid model on 25 various UCI datasets to assess its performance and robustness

## Technical Skills

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**Languages:** Python, SQL

**Databases:** MySQL, MongoDB, RDS, DynamoDB

**Frameworks:** Flask, FastAPI, Tensorflow, PyTorch, Elasticsearch

**Technologies:** AWS, Docker, Git

## Certifications

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**AWS Certified Developer Associate** 🌐 | *Amazon Web Services*

**Nov. 2020 – Nov. 2023**

**Deep Learning Specialization** 🌐 | *Coursera*

**Mar. 2018 – Present**