# **Mahima Chhagani**

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With experience in software development and data science, am seeking a challenging role to leverage my skills in the field of Artificial Intelligence.

Technical Skills: Python, R Programming, SQL, Tableau, C++, SAS, Web development, Linux, AWS services, GitHub, MS office.

Soft skills: Communication, Presentation, Problem-solving, Leadership, Teamwork, and Creativity.

#### PROFESSIONAL EXPERIENCE

## **Machine Learning Engineer**

Dec 2023 - Dec 2023

RegSpot AI, Toronto, Ontario

- Collaborated with Regspot.ai for a contract-based project, fine-tuning the GPT-3.5-turbo-1106 model for detecting marketing compliance issues in input documents (text).
- Evaluated data quality and addressed data scarcity issues by generating additional data using prompt in Conversational AI. Along with, conducting testing on zero-shot learning and few-shot learning.
- Generated a fine-tuned model with balanced variance and bias, low error, and reduced the false positives via prompt engineering, feature engineering, testing and performance evaluation techniques.

#### Research Assistant – Data Scientist (GitHub)

Feb 2023 – May 2023

Seneca College, Toronto, Ontario

- Partnered with Oppos Inc. to enhance AI functionality via research on Large Language Models (LLMs) like BERT and GPT-3.5.
- Utilized Python (Flask, Ilama\_index, LangChain, HuggingFace libraries) to develop an economical and accurate portal to answer cybersecurity survey questions based on input pdfs (text) for private companies.
- Being the lead research assistant, ensured the direction of the project during sprints based on the performance of the model and developed leadership and teamwork qualities.

## Research Assistant – Software Developer (GitHub)

Feb 2022 – Aug 2022

Seneca College, Toronto, Ontario

- Established an IOT device to send weather and inverter data to InfluxDB on a remote Linux server, using Python, Arduino, and Raspberry Pi.
- Applied text mining on IOT gathered and additional web-scraped data, to the development of an efficient data pipeline within the agile framework.
- Implemented predictive analysis and data visualization, using tools like Tableau to identify patterns and insights for predicting maintenance requirements of installed solar panels.

#### **Artificial Intelligence Engineer**

Dec 2019 - Dec 2020

Turabit, Ahmedabad, Gujarat

- Developed a business intelligence dashboard using Python, HTML, CSS, SQL, and JavaScript, resulting in a 20% increase in customer satisfaction rates based on the analysis of customer feedback.
- Utilized NLP techniques to gain insights from customer comments (text), facilitating informed decision-making regarding the product and service improvements.
- Collaborated with cross-functional teams to identify key business challenges and implemented data-driven solutions.

#### **EDUCATION**

## **Business Analytics** | GPA - 3.7/4.0

Seneca College, Toronto, Ontario

- Enhanced expertise in data analysis and sentiment analysis, through hands-on projects using SAS, SQL, and Python. Provided statistical and analytical solutions for real-world business case studies.

### International Business Management | GPA - 3.9/4.0

Jan 2021 - Aug 2021

Seneca College, Toronto, Ontario

- Performed market research and analysis report with a business plan for a local Canadian company. Expanded skills in project management, accounting, finance, and sustainable business using Microsoft Office Suite.

## Bachelor of Technology in Computer Science | GPA - 3.25/4.0

Aug 2016 - Jun 2020

Charotar University of Science and Technology, Changa, Gujarat

- Gained extensive knowledge in software project management, statistics, data mining and processing, machine learning, applied mathematics, theory of computation, data structure and algorithms, and cybersecurity.

#### **CERTIFICATION COURSES**

- Generative AI with Large Language Models Coursera
- Practical Data Science on the AWS Cloud Specialization Coursera
- Natural Language Processing Specialization DeepLearning.Al
- Deep Learning Specialization DeepLearning.Al
- AWS Certified Machine Learning Specialty 2023
- AWS Certified Machine Learning Specialty MLS C01

## **ACADEMIC/RESEARCH PROJECTS**

#### Natural Language Inference Classification (GitHub)

- The project implements zero-shot learning, full fine-tuning, and PEFT fine-tuning using xlm-roberta-base model and compares their performance with other Hugging Face transformers.

## **Breast Cancer Analysis: Cause of Node-caps (link)**

- Conducted statistical analysis and predictive analysis using Test Hypothesis and Naïve Bayes to identify the factors that may lead to node infection or cancer spread in breast cancer patents, achieving an accuracy of 90.99%.

## Aggressive drivers in Toronto (link)

- Executed exploratory data analysis and data visualization using Tableau storyboard, on a large dataset provided by the Toronto Police Department to identify KPIs to measure aggressive driving patterns for creating a safer society.

#### Cyclistic bike-share analysis (link)

- Completed a case study, "How Does a Bike-Share Navigate Speedy Success?", utilizing R language to provide actionable insights to increase subscribers, via descriptive analysis and geographic mapping (using ggplot and ggmap packages).

Jan 2022 – Aug 2022