# Anshul Kaushal

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#### **EDUCATION**

The University of British ColumbiaVancouver, BCMaster of Data Science Computational Linguistics GPA: 4.33/4.33Sep 2021 - Jun 2022Humber CollegeToronto, ONCertificate of Achievement Web Design and Development GPA: 79.3/100Jan 2021 - Aug 2021Punjabi UniversityPatiala, PB, INBachelor of Technology Computer Science and Engineering GPA: 8.24/10Aug 2015 - Jun 2019

EXPERIENCE

**Katalon Inc.**Data Scientist Intern - Natural Language Processing, Capstone Project

May 2022 - Jun 2022

- To help software testers, implemented an end-end prototype pipeline that translates software test cases written in plain English to a programmable test script written in the Groovy programming language using NLP methodology with only a limited set of examples.
- Leveraged Python data structures and semantically parsed representations of the test cases to navigate unique object paths of the software elements (buttons, text-boxes etc.), with a 100% success-rate (uniquely: 90% and a list of 2-3 possible values: 10%)
- Provided the organisation with examples for writing relatively articulate test case instructions in order to facilitate easier translation.

Infosys Pvt Ltd.
System Engineer, Trainee

Mysore, KA, IN Jan 2019 - May 2019

- Learnt and applied technologies pertaining to the domain of software engineering including Python, SQL, Java, Java Spring Boot, REST APIs, TypeScript, Angular etc.
- Successfully implemented a web application to assist data analysts at Infosys, working on a product, to monitor the synchronisation of data (from multiple data-points) when transmitted from a local system to a server.
- Recognised as a 'high performer' by the organisation for performing well in the conducted theoretical and practical exams during the training.

#### SKILLS

Programming Languages: Python, R, Java, C++, C

Data Management and Retrieval: PostgreSQL, MySQL, MongoDB, Elasticsearch

Data Analysis: Python (Pandas, NumPy), R (tidyverse, lubridate), Excel

Data Visualization: Tableau, Python (Altair, Seaborn), R (ggplot2)

Machine Learning: Scikit-learn, XGBoost, R packages
Deep Learning: PyTorch, Huggingface, SpaCy, Gensim

Neural Net Models: RNN, LSTM, CNN

Large Language Models: Transformers (BERT, GPT-2, RoBERTa), T5

Supervised Learning: Decision Trees, Random Forest, SVM, NN, Naive Byes, Regression, Boosting

Unsupervised Learning: Clustering (K-means), Dimensionality Reduction (PCA)

Data Engineering: Beautiful Soup

Software Engineering: Java Spring Boot, RESTful WEB Services, Postman, Docker, Git (Github)

Web Development: HTML, CSS, Javascript, Typescript, Angular, React, Node js

Development Environment: Jupyter Lab, Google Colab

## Projects

Line and Length Feature Extractor: Cricket Commentary PyTorch, Hugging face, Pandas, BERT https://github.com/anshul-kaushal/line\_length\_feature\_extraction\_cricket\_commentary Built a model to extract line and length features of a ball delivery from cricket text commentary with a precision of 93% and an F1-score of 86%, using merely 100 self-annotated examples and a semi-supervised learning strategy.

### Analyzing Customer Churn Tableau

Analyzed a dataset from scratch to create various interactive visualizations, further combined into multiple dashboards, and presented as a story, to help highlight KPIs and answer questions pertaining to the customer churn at Databel.

 $\textbf{Bot Tweets Classifier}\ PyTorch,\ Hugging face,\ Pandas,\ BERT,\ RoBERTa,\ T5,\ GRU,\ M2M100\ https://github.com/anshul-kaushal/bot_tweets_classifier$ 

Trained numerous deep learning models to detect artificially generated English and French tweets, and achieved a 90% F1-score for tweets generated by non-GPT-2 bots.

Movie Script Generator PyTorch, Huggingface, Pandas, Beautiful Soup, GPT-2

https://github.com/anshul-kaushal/movie screenplay generator

Built a movie script generator that can generate a movie screenplay with apt format, given a prompt, using the GPT-2 model fine-tuned on horror movie scripts scraped from the internet.