

Master of Computer Science (AI-based Thesis)

University of Ottawa

Sep 2020 - Aug 2022 | Ottawa, Canada

GPA: 4.0 / 4.0

Relevant Coursework: **Machine Learning, AI for Cybersecurity Applications, Natural Language Processing (NLP), AI for Virtual Assistants, NLP for Software Engineering.**

Bachelor of Technology - Information Technology

Guru Gobind Singh Indraprastha University

Aug 2015 - May 2019 | New Delhi, India

GPA: 9.01 / 10.0

Relevant Coursework: **Applied Mathematics, Data Structure and Algorithms, Object Oriented Programming, Web Technology, Artificial Intelligence, Data Warehousing.**

WORK EXPERIENCE

ML & NLP Research Assistant

IBM X University of Ottawa

May 2021 - Present | Ottawa, Canada

Cyber Security

Log Analytics

Information Retrieval

Deep Learning

Language Models

Python + PyTorch

- Developing a system for automatic information extraction from log files.
- Focusing primarily on log augmentation techniques and deep learning techniques including sequence-to-sequence, transformers and language models.

Software Engineer

Quovantis Technologies

Jun 2019 - Oct 2020 | Delhi NCR, India

Python

Flask

PostgreSQL

AWS Cloud

Apache Airflow

Redis

RabbitMQ

Tornado

- Employed Function-as-a-Service(FaaS) and other serverless technologies to create highly scalable applications using the AWS cloud.
- Developed REST APIs and business logic using various design patterns.
- Developed healthcare-centric data pipelines and workflows using Apache Airflow to achieve a fully automated healthcare engagement system. Also optimised existing workflows and made them ~10x more efficient.
- Used NLP concepts and packages to build a conversational engine for healthcare engagement.

Software Engineer Intern

Sopra Steria

Jan 2019 - May 2019 | Delhi NCR, India

- Developed an end-to-end resource allocation tool using Flask and Angular resulting in ~3X faster assignment of engineers to projects.



An Extensive Comparison of Systems for Entity Extraction from Log Files [Link](#)

Foundations and Practice of Security 2021

Dec 2021 | Paris, France

- Performed an extensive and systematic comparison of different log parsing techniques and systems based on machine learning and deep learning approaches including Transformer Neural Network, BERT and more.
- Carried out an extensive set of experiments on in-scope and out-of-scope datasets aiming at estimating the performance in log files from known and unknown log sources.

HEAL (Heterogenous Ensemble and Active Learning Framework) [Link](#)

34th Canadian AI Conference

May 2021 | Vancouver, Canada

- Proposed framework allows users to build an ensemble model that dynamically adapts to the current characteristics of the data.
- Framework capable of updating and deploying machine learning model dynamically with respect to time as the data arrives in an online fashion by making the use of active learning.

Drum Instrument Classification using Machine Learning [Link](#)

IEEE ICAC3N-20

Dec 2020 | Delhi NCR, India

- Performed data collection, pre-processing and feature extraction from audio files.
- Prepared an instrument classification model which could predict the instrument in real-time.

LIBRARIES PUBLISHED

K-Fold-Imblearn (released on PyPI)

[Github Link](#)

[Documentation Link](#)

- KFoldImblearn handles the resampling of data in a k fold fashion, taking care of information leakage so that our results are not overly optimistic. It is built over the imblearn package and is compatible with all the oversampling as well as under sampling methods provided in the imblearn package.

PERSONAL PROJECTS

Please visit my Portfolio: www.anubhavchhabra.com to take a deeper dive into many of my applied and research projects.

- **Jugni (My own Virtual Assistant):** There are numerous repetitive tasks in our day-to-day lives which VA's like Siri and Alexa cannot handle. Jugni is a fully customizable python-based VA which allows modules to be plugged and played.

Python

Virtual Assistants

Conversational Design

NLP

Intent Detection

- **Automated Music Composer:** Automated Music Composer minimizes the ideation time of a music producer to be negligible. We provide users with plenty of melody and rhythm ideas with just a single click.

Python

Deep Learning

Sequence Models

Keras

Flask

CERTIFICATIONS

- Neural Networks and Deep Learning - DeepLearning.AI
- Data Science with Python - University of Michigan & Coursera
- Machine Learning - Coding Ninjas India

