

## EDUCATION:

### Master of Science in Data Science

Indiana University Bloomington  
Bloomington, Indiana, US

August 2021 - May 2023

### Bachelor of Technology in Computer Science & Engineering

Guru Gobind Singh Indraprastha University  
Maharaja Agrasen Institute of Technology, Delhi

2015- 2019  
CGPA: 8.26/10.0

## MOOC Courses

Dataquest	: <b>Data Science</b> Track
Coursera	: <b>SQL</b> for Data Science
Coursera & DeepLearning.ai	: <b>Deep Learning</b> and NLP
Coursera and Stanford University	: <b>Machine Learning</b>

## WORK EXPERIENCE:

### Accenture, Chennai, India - *Software Engineer*

Aug, 2019- Aug, 2021

- Conducting system wide analysis and problem defining along with proposals of adequate solutions.
- Involved in testing and approval of the technological products
- Recommending and implementing the changes in technological policies.
- Developing API's along with system integration
- File management for application through AWS S3

## INTERSHIPS:

### Uniqgrid, Gurugram, India - *Data Scientist Intern*

Jun- Aug, 2019

- Worked directly under the CEO to develop analytical and predictive models for large scale mechanical machines using draft and testing data for field deployment.
- Built Semi-Productionalized and deployable ML system.

### Aeologic Technologies Pvt. Ltd., Noida, India - *SDE Intern*

Jun- Aug, 2018

- Revamped the UX/UI of the app (Bull horns Panic Button)
- Designed and developed core features for a real-time helping Android application using Java (currently available in the Google Play store)
- Reduced time it took for location to get reported by approx. 10%
- Wrote maintainable and reusable Java code with a focus on documentation

### Tech Mahindra, Noida (Uttar Pradesh), India - *Software Engineer Intern*

Jun- Jul, 2017

This internship involved 2 projects, one major and one minor:

- Admission portal using java and Survey application development using Android
- Created SQL database structures that integrate with Android applications and web interfaces.
- Wrote maintainable and reusable Java code with a focus on security and privacy

### National Informatics Centre, Delhi, India - *Software Engineer Intern*

Jun- Aug, 2016

- Learned how to analyze the information available
- Getting a hand on debugging
- Involved in Software documentation and testing

## RESEARCH PAPERS:

- “Leveraging the power of quantum computing for breaking RSA encryption” (**Published**) - Cyber-Physical Systems(Taylor & Francis) ( [Link to the paper](#) )
- “Scalable Machine Learning in C++ (CAMEL)” - (**Published**) - International Conference on Innovative Computing and Communications pp 1063-1081( [Link to the paper](#) )

## PROJECT EXPERIENCE:

- **Scalable Machine Learning in C++ (CAMEL)** (Link: <https://github.com/camelml/camel>)
  - In this project we aim to create a library that is purely developed in C++, a widely used compiled language. We also aim to calculate the performance metrics of Compiled vs Interpreted Languages after developing the algorithms.
  - We also employ the use of the Scientific library “Armadillo”, which helps us ease many math related functions and help us traverse the problem of dynamic datasets introduction instead of static coded matrices.
- **Recommendation Engine Project** (Link: [https://github.com/coderop2/recommendation\\_system](https://github.com/coderop2/recommendation_system))
  - Data was scraped from TMDB API. A story was created to understand the nooks and crannies of the movie business. Dummy classifier and gradient boosting classifier were used to predict the success of a movie.
  - Implemented Simple Generic Recommender, the Content Based Filter and the User Based Collaborative Filter. To implement collaborative filtering Surprise library is being used which implements extremely powerful algorithms like Singular Value Decomposition (SVD) to minimize RMSE.
- **ZS DATA-A-THON Project** (Link: [https://github.com/coderop2/ZS\\_DATA-A-THON](https://github.com/coderop2/ZS_DATA-A-THON))
  - Used AdaBoost, RandomForest, DecisionTree and GridSearchCv to predict the sales of various countries (Time Series Analysis)
  - Eight different models were incorporated into one to predict the NA values that were present in the data in a 10 hour long competition which resulted in me getting a PPI.
- **Data Science Projects** (Link: [https://github.com/coderop2/Data\\_Science\\_projects](https://github.com/coderop2/Data_Science_projects))
  - Boston house Price prediction-prediction of prices of houses in the region
  - Analysis of New York Schools - Which involved analysis of schools located in the NY area. Analysis involved graduation info, kind of scores required to get in the school etc. Many more mini projects.

## TECHNICAL SKILLS:

**Data Analysis Python**, Google Analytics, SQL, Regression analysis, data visualization, time series analysis etc.

**Statistics** A/B Testing, Non-parametric testing, ANOVA, Hypothesis Testing, bootstrapping, PCA etc.

**Modeling** Regression & classification algos, CV, Natural language processing(NLP) etc.

**Software:** Git, IPython, Jupyterlab, Amazon Web Service (AWS), Alibaba cloud service etc.

**DataBase:** MongoDB, MySQL, PostgreSQL

**Others:** Excel, Tableau, spark, Java, Android, HTML, CSS, Excel, Airflow DAG, .Net framework

## TO-GO-FOR:

- Google Udacity scholar 2018
- Facebook Udacity Secure AI scholar 2019
- Participates in various NGOS like BIF, SERI and feeding India.
- **Technical author** for **Alibaba cloud** ([Link](#)) website - for the topic Machine learning.
- Secured my very first bronze in kaggle competition “Santander Customer Transaction Prediction” after securing a solo position within the top 6%.
- Was ranked 31st amongst 10,000+ registrations for the ZS Young Data Scientist Challenge held on 23rd July, 2018. Further, top 43 candidates were called to Pune, India for a second competition, which resulted in a PPI from ZS.