

# Vipul Harashwaradhana Harihar

+19172145091 | [vhh2105@columbia.edu](mailto:vhh2105@columbia.edu) | [linkedin.com/in/vipulharihar](https://linkedin.com/in/vipulharihar) | [github.com/virslaan](https://github.com/virslaan) | [linktr.ee/vipulharihar](https://linktr.ee/vipulharihar)

## EDUCATION

### Columbia University, Fu Foundation School of Engineering and Applied Science

**M.S. in Data Science**, GPA: 3.6/4.0

New York, NY

Sep 2022 - Dec 2022

- **Courses:** Algorithms, Applied Machine Learning, Deep Learning, Statistics & Inferential Modeling, EDAV, Computer Systems
- **Honors:** Data Science Department Representative, Professional and Leadership Fellow, Course Assistant (Algorithms)

### DIT University, School of Computing

Dehradun, IN

**B.Tech. in Computer Science & Engineering**, GPA: 9.62/10 (in Top 1% undergrad students)

Aug 2016 - May 2020

- **Courses:** Software Engineering, Artificial Intelligence, Relational Databases, Data Science, OOPs, and Engineering Mathematics
- **Honors:** Computer Science Program Topper Gold Medal and University Bronze Medal Awards and Scholarship Recipient

## SKILLS & TECHNOLOGIES

**Languages:** Python, Java, R, SQL, HTML, CSS

**Python Packages:** NumPy, Pandas, SciPy, OpenCV, Scikit-Learn, Keras, TensorFlow, Matplotlib, Seaborn

**Databases:** MS SQL Server, MongoDB, Google BigQuery, Google Firebase

**Data Visualization:** Tableau, Power BI, R, Google Data Studio, IBM Cognos Analytics, ggplot2

**ML Techniques:** Classification, PCA, Sentiment Analysis, Time-Series, Cluster Analysis, Regression

**Certifications:** IBM Cognos, Data Analysis Using Python (IBM), Applied Data Science with Python-Level 2 (IBM), Microsoft Azure

## PROFESSIONAL EXPERIENCE

### IBM (International Business Machines Corporation)

Bengaluru, IN

*Application Developer*

Feb 2021 - Aug 2021

- Managed 2 MySQL databases, queried 5500+ records for IBM client IKEA on monthly basis.
- Performed more than 45 bug fixes and resolved data duplication issue on IBM Pre-Accounting Module for the Data Accessibility.
- Assisted Senior Software Developers in IBM Sweden in migrating PAM Software to the Cloud on OpenShift.

*Associate Systems Engineer*

Jan 2021 - Feb 2021

- Sharpened Software Development Skills on Frontend, Backend and Middleware using Java, JavaScript, Data Structures Algorithms
- Completed training on '[Advanced Technologies](#)' in 29 days and became IBM Golden Employee 2021 (annual recognition to IBM hardworking employees) and promoted to Application Developer on the project with the client IKEA furniture, Europe.

### Indian Roads Safety Campaign, Solve Foundation

Dehradun, IN

*Internship: Policy Intern*

Jul 2020 - Dec 2020

- Developed application to classify 75.86 mi<sup>2</sup> dangerous accident-prone area in Dehradun city using logical-coding and development.
- Supervised 6 team members to collect data and conduct data cleaning, and its predictive analytics for the project.
- Completed the social community project and got appreciation by NGO, Uttarakhand State India - Gramaya Welfare Society.

### IBM (International Business Machines Corporation)

Dehradun, IN

*Internship: Java Full Stack Developer Intern*

Feb 2020 - Jul 2020

- Created delivery app using microservices in Spring Boot to solve food crisis in Covid-19 outbreak situation for 29 restaurants.
- Led 5 interns to code - Web based restaurants statistics dashboard, performs and compute popularity and impressions in 47 days.
- Trained the team to perform complex SQL joins on 20 databases that facilitated regression analysis for project.

### ONGC, Ministry of Petroleum and Natural Gas, Government of India

Dehradun, IN

*Internship: Summer Scholar - Big Data Engineer Intern*

May 2019 - Jun 2019

- Created my first end to end web application to analyze company's profile on news media (5 open-source websites)
- Scrapped open-source data using beautiful soup Python packages on 5 news websites and leveraged filtering on trending keywords.
- Pre-processed big data on Hadoop and used BigQuery (GCD) for 39 days to get insights on oil and its relevant insights from data.

## DEVELOPED PROJECTS

### Columbia University

New York, NY

#### Enhanced Credit Card Fraud Detection- Multi Class Classification (Imbalanced Datasets)

Feb 2022 - April 2022

- Engineered a 3x faster single-click machine learning solution; automated classification algorithms using Gradient Boosting.
- Programmed data-agnostic codes for Logistic Regression, Naïve-Bayes, Decision Tree, and Random Forest algorithms in Python.
- Structured evaluation metrics: Recall Rate, and ROC-AUC values to detect optimized model for fraud multi-class classification.
- Conceptualized features and their importance in 5 team members to successfully classify imbalanced data of 9062 records.

### DIT University

Dehradun, IN

#### Machine Learning based Imaging System for Roads Defect Inspection

Aug 2019 - Feb 2020

- Extracted and pre-processed 2000+ images to classify more than 38 potholes using OpenCV library in Python.
- Supervised a 3 members team to complete the project in 7 months and got appreciated by Vice Chancellor on Annual Project Fair.

All my projects and work contribution can be viewed on my GitHub Profile :[github.com/virslaan](https://github.com/virslaan)