

# Vipul H Harihar

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## EDUCATION

### Columbia University

*Master of Science in Data Science, GPA: 3.6/4.0*

New York, NY

Dec 2022

- Applied Machine Learning, Deep Learning, Computer Systems, Advanced DBMS, Advanced Data Structures and Algorithms Analytics
- Department Representative, PDL Fellow, Best Data Science CA Award 2022 & 2023, Columbia Golden Graduate Marshal 2023

### DIT University

*Bachelor of Technology in Computer Science & Engineering, GPA: 9.62/10.0*

Dehradun, IN

May 2020

Specialization in Big Data Analytics

- Software Engineering, Artificial Intelligence, Discrete Mathematics, Data Science, Object Oriented Programming, Engineering Economics
- Computer Science Gold Medal & University Bronze Medal Recipient, Received Annual Academic Excellence Scholarship – 3 consecutive years

## SKILLS (PROFESSIONAL CERTIFICATIONS AND BADGES)

- Python, Java, JavaScript, SQL, Linux-Shell, Bash, HTML, CSS
- Flask, React, Angular, Frontend, Model View Controller Architecture, Backend APIs, CI/CD, Spring, Git-Version Control, Tableau
- Data Pipelines, ETL Processes, AWS, RedHat, OLAP, Cloud Data Warehouses (GCP- BigQuery), IBM-Cognos, Power BI
- Regression, Classification, Random Forests, XGBoost, NLP, Time Series, Quantitative Data Analysis, Image Processing
- Team Managing, Web Applications, Full Stack Development, Distributed System Design, Advanced DBMS, Debugging, Testing

## WORK EXPERIENCE

### GenTrust Wealth and Assets Management Company

New York, NY

#### Software Engineer (Lead)

Aug 2022 - Present

- Guided 4 membered team in revamping in-house investment application's frontend, backend, and infrastructure on AWS, used for 400+ clients
- Revamped client intake system, automating 15+ data pipelines in Python to streamline portfolio management for 20+ advisors and their clients
- Designed 3 in-house ML models to swiftly aid advisors in enhancing their client management & responsiveness using AI tools
- Developed Tax Optimization Algo yielding enhanced strategic asset and securities management with insightful gains for 500+ client's portfolios
- Coded Tax Loss Harvesting system, refining firm-wide tax strategy, and saving the firm more than \$2M in potential tax liabilities

### NYC – DDC (NYC Department of Design and Construction)

New York, NY

#### Data Science Research Fellow - Capstone Project Lead

Sep 2022 - Dec 2022

- Utilized 15 GB data to design 3 statistical models to predict carbon emissions for repurposing 70,800 wind turbine blades across New York State
- Engineered a robust full-stack web application, currently administered by NYC-DDC to streamline wind turbines blade repurpose management
- Exhibited DevOps acumen by executing a cost-efficient cloud deployment of this application within an accelerated 8-day delivery schedule

### NewYork-Presbyterian - Children's Hospital, Columbia Medical Center

New York, NY

#### Research Assistant and Engineer

May 2022 - Dec 2022

- Led 2 software development initiatives, mentoring fellow 2 research assistants in full stack web application-specific coding, and debugging
- Engineered medical passport system for 79 cardiac patients, leveraging encryption to ensure data confidentiality on local storage
- Devised application with 2 data pipelines that enhanced client-side analysis speed and accuracy without storing any data on any server

### IBM (International Business Machines Corporation)

Bangalore, IN

#### Full Stack Application Developer

Feb 2020 - Aug 2021

- Managed a team of 5 members, migrating client's Pre-Accounting Module in Java to RedHat, realizing a 33% app-hosting cost reduction
- Collaborated with IBM Sweden to optimize 5 CI/CD flows, removing 5K+ data redundancies & reducing data processing time by 65+ minutes
- Coded robust application using Angular, Spring, & NodeJS, achieving a 24.87% faster performance compared to legacy platform

### Indian Roads Safety Campaign: Solve, MRTI- Government of India

Dehradun, IN

#### Software Engineer Intern

Jul 2020 - Dec 2020

- Empowered safety of over 16,000 commuters by devising Spring(Angular) road safety application for a non-profit organization
- Guided a team of 4 during the pandemic in developing real-time solutions to identify and report 17+ accident-prone areas via this application