Vishal Bhardwaj

Employment

Nov 2023 - Data Analyst, Servewell HR

Present **Projects**:

- Real-Time Revenue Anomaly Detection System: Built an automated Python and SQL pipeline to detect billing, invoicing, and payments anomalies. Integrated data from multiple departments, flagged mismatches, and sent daily exception reports. Contributed to the recovery of over 67 Lakhs in missed invoices and reduced revenue leakage by 40%.
- Loan Application Risk Profiling & Credit Segmentation: Developed a segmentation model for loan applicants using financial indicators and SQL queries. Classified customers into risk categories (P1–P4) and built Excel dashboards for visualization. Enabled faster approvals and improved risk assessment accuracy.
- Compliance Automation for KYC/AML Review: Created a rule-based engine to identify suspicious transactions using KYC and activity logs. Automated alerts and compliance reports using Python and SQL. Reduced manual review workload by 70% and enhanced audit readiness.

Aug 2022 - Teaching Fellow, Plaksha University, Mohali

July 2023 Courses Taught:

 Summer 2023 – FM 121: Programming and Data Structures Instructors: Sandeep Manjanna, Manoj Kannan

○ **Spring 2023** – FM 131: Programming and Data Structures

Instructors: Sandeep Manjanna, Manoj Kannan

 Fall 2022 – FM 111: Computational Thinking Instructors: Kanchi Gopinath, Manoj Kannan

Responsibilities: Syllabus planning, lab instruction, student mentoring, tutorials, grading assignments, and quizzes for a cohort of 98 students.

Education

2020–2022 M.Sc., Mathematics and Computing, National Institute of Technology, Manipur

Thesis: Prime Divisors in an Arithmetic Progression and Explicit abc-Conjecture

Advisors: Shanta Laishram, Indian Statistical Institute Delhi 2016–2019 B.Sc., Mathematics, GD Goenka University, Gurugram

Thesis: A Study of Hypergeometric Functions

Advisor: Smita Sood

Internships

Summer 2018 Research Intern, Indian Institute of Technology, Guwahati

Area: Numerical Analysis for ODEs Advisor: Natesan Srinivasan

Publications

[1] Seasonal Variation with respect to Water Quality Index of Ghaggar River, with Smita Sood et al. (2018). [PDF]

Projects

2017–2018 Undergraduate Projects, GD Goenka University, Gurugram

- Industrial Input Panel for Blind Operator
- O Distance Measurement Using Ultrasonic Sensor
- Animated LED Cube, Smart Auditorium System
- O Statistical Analysis of Biomedical Waste in India
- Forecasting of Electric Vehicle Adoption

Skills

Programming Python, SQL, Data Structure and Algorithm, Bash

Data Analysis Statistical Analysis, Data Cleaning & Preparation, Excel (Advanced), Power BI, Tableau

Conferences and Workshops

- 2023 Southern Regional Number Theory Conference (Online), LSU
- 2022 Bayou Arithmetic Research Days (Online), LSU
- 2022 FPSAC 2022, IISc Bangalore
- 2022 Workshop on L-functions and Circle Method (Online), ICTS-TIFR
- 2020 Applied Physics and Mathematics, NIT Manipur
- 2017-2018 REDSET and IC3TSN, GD Goenka University

Awards and Honors

- 2020 All India Rank 861 in IIT JAM (13,186 candidates)
- 2019 Best Co-Curricular Activities Award, GD Goenka University
- 2016–2019 1st Rank in UG Studies; Dean's List Honoree, GD Goenka University
 - 2022 Travel Grant of INR 10,248 for FPSAC 2022, IISc Bangalore

Leadership and Service

- 2020-2022 Student Member, DPPC, NIT Manipur
- 2020-2022 President, Mathematics Society, NIT Manipur
- 2021–2022 Placement Coordinator, Mathematics Dept., NIT Manipur

Outreach and Volunteering

- 2023 Teaching Assistant, Young Technology Scholars, Plaksha University
- 2022–2023 Admissions & Outreach, Plaksha University
 - 2022 Management Team, Young Creators League