Harshit Panwar

GitHub: github.com/Harsh-Panwar000 | **Email:** hp56@njit.edu | **Phone:** (732) 487 1294 | **LinkedIn:** linkedin.com/in/hpanwar

---

Education

New Jersey Institute of Technology   September 2021 – May 2025
B.S. in Computer Science and Applied Mathematics   GPA: 4.0
Albert Dorman Honors College Scholar

Coursework: Data Structures and Algorithms, Database Design and Management, Programming in Linux, Operating Systems, Linear Algebra**,** Partial Differential Equations, Probability and Statistics, Introduction to Data Science, Real Analysis

---

Skills

Languages: Python (*NumPy, Pandas, Matplotlib, BS4, PySpark*), Java (*Spring Boot, JUnit*), SQL, C/C++, Bash, HTML/CSS
Cloud: Azure (*Virtual Machine, Data Factory, SQL Database*), AWS (*Step Function, Lambda, DynamoDB, SQS, Glue*)
Other: Microsoft Graph API, Tableau Server Client, Office365 API, Apache Impala, Git, Agile

---

Experience

Software Engineering Intern   June 2023 – August 2023
Prudential Financial | Newark, NJ

- Set up backend infrastructure for batch processing of policy-related files by configuring an AWS Step Function with Lambda, SQS, Glue, and DynamoDB, reducing upload time by ~60%
- Led a cross-functional team of interns in designing and building APIs using Flask and Google Firestore to successfully deliver a proof of concept for an internal networking web application
- Developed extensive tests for Spring Boot microservices**,** extending code coverage by 80% to meet enterprise standard

Data Engineering and Analytics Co-op   January 2023 – June 2023
Johnson & Johnson | Bridgewater, NJ

- Implemented an automated system to alert users of overdue server tasks and deployed it on an Azure VM, leading to a ~35% reduction in overdue tasks, 10 hours/month reduction in manual work, and $15,000 in annual savings
- Refactored legacy code connecting to Apache Impala and Azure SQL Databases to avoid deprecation in the codebase
- Automated table refreshes with data pipelines in Python and Azure Data Factory increasing throughput by ~40%
- Investigated SQL queries to resolve discrepancies between Tableau dashboards to ensure accurate metrics
- Managed a team of co-ops to create an Outlook add-on using Microsoft Graph to promote upskilling within the organization

Undergraduate Research Assistant   May 2022 – Present
New Jersey Institute of Technology | Newark, NJ

- Performed time-series analysis on temperature, density, and velocity data using SciPy to create a peak-finding algorithm identifying an optical phenomenon known as STEVE
- Implemented various quantitative strategies in scripts to process 60 million data points and identify temperature spikes
- Designed 10+ data models using Matplotlib to enhance visual pattern identification for stakeholders
- Developed a batch processing routine for data processing reducing time and memory usage by ~50%

Projects

Recs4Parks   November 2022

- Delivered a full-stack Flask web application during the ACM Hackathon to provide park recommendations to users
- Consolidated and displayed park descriptions, activities, and weather reports using the National Park Service API

Banking Website   August 2022

- Created a mockup using Flask for a banking website from the user view, implementing the following: Checking accounts, Savings accounts, Stock shares, and User Authentications
- Utilized the yFinance API to retrieve market data and update user portfolio, hosting changes on an SQLite3 database

Covid-19 Cases Map   July 2020

- Filtered, extracted, and combined data with 100+ metrics (infections, deaths, recoveries, etc.) using Pandas framework from 2 datasets on Covid cases and country locations
- Mapped the data using Folium package to create visual representation of COVID cases that accurately depicted the proportion of cases in a given geographic location