

Harshil Machhi

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EDUCATION

Rutgers, The State University of New Jersey

New Brunswick, NJ

B.S. in Computer Science; B.S. in Data Science

May 2025

- **Relevant Coursework:** Data Management, Data Structures, Computer Architecture, Linear Algebra, Discrete Math, Calculus II, Principles of Information for Data Management

PROFESSIONAL EXPERIENCE

Rutgers University – New Brunswick

New Brunswick, NJ

Learning Assistant

Aug 2023 - Present

- Collaborate closely with students and faculty to improve the learning environment, developing teamwork and adaptability skills that contribute positively to group dynamics, nurturing an atmosphere of mutual support
- Leverage analytical thinking and systematic problem-solving to assist students in mastering intricate problems, breaking down complex concepts into manageable steps, helping students build critical and active thinking

POWER Changes Lives Inc.

Edison, NJ (Remote)

Project Coordinator Intern

Aug 2022 – Nov 2022

- Developed and maintained a database system for monitoring and managing multiple data sheets, ensuring efficient data importation and integration with the company's website. This improved the accuracy and accessibility of information on products, balances, and activity status for partner restaurants and allowed for seamless data updates.
- Optimized the data management process by designing a custom automated email system to manage the onboarding of over 100 restaurants across 21 counties in New Jersey.

PROJECTS

FlightLink – *Java, SQL, HTML, CSS, JavaScript, JDBC*

October 2023

- Designed and implemented a relational database system to support online travel reservation operations, utilizing MySQL, Java, and JDBC for seamless connectivity between the user interface and database.
- Developed a web application to provide users with dynamic search capabilities, real-time flight reservations, and user access controls to main data integrity and security, while also creating a responsive web application
- Devised and executed data analysis tools within the travel system, enabling extraction of pivotal metrics like top-generating revenue flights, showcasing an aptitude for deriving actionable insights from complex datasets.

RURideShare – *Python, SQLite3, HTML, CSS, JavaScript, Flask*

October 2023

- Architected and executed a user-centric ride-sharing web application for the Rutgers community; harnessed Python (Flask) to craft back-end functionalities like user authentication, ride listing, and a real-time messaging system
- Integrated Google Maps API to provide real-time location tracking within the app, enhancing user trust and convenience by enabling them to track drivers and fellow users, which was pivotal in ensuring safety and reliability

Spotify: This or That Game – *Python, JavaScript*

July 2023

- Developed an interactive web-based application for a “This or That” game that utilizes Spotify’s API to analyze users’ listening history and present two artists for comparison, offering insights into their music preferences
- Transformed raw listening data into an engaging and interactive user-friendly interface with JavaScript, showcasing strong data manipulation and visualization

LEADERSHIP EXPERIENCE

Math League International Summer Tournament

Ewing, NJ

Counselor

July 2023

- Managed and mentored a diverse group of over 300 international math students, ensuring a productive and harmonious environment leading to a 15% increase in positive feedback compared to previous years
- Employed strategic problem-solving techniques to address and resolve 200+ student-related issues, ensuring participant engagement and the smooth, on-schedule progression of the tournament’s events.

SKILLS

Programming: Java, C, Python, HTML, CSS, JavaScript, SQL, R