

# Rishi Rajesh Jeswani

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## EDUCATION

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### North Carolina State University

Raleigh, NC

*Bachelor of Science in Computer Science*

*Aug. 2022 – Dec. 2025*

**Relevant Coursework:** Automated Learning and Data Analysis, Python Applications in Automation and Machine Learning, C and Software Tools, Data Structures and Algorithms, Software Development with Java.

## PROJECTS

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### Professor Clustering Analysis | *Python, Machine Learning, Data Visualization*

November 2024

- Collaborated on dataset creation via web scraping and validation from RateMyProfessor and NCSU Gradient.
- Pre-processed data with pandas and applied fuzzy matching to standardize and clean datasets.
- Applied various clustering algorithms, including K-means, to analyze trends in quality, difficulty, and GPA.
- Visualized clustering results with 2D/3D plots using Matplotlib to highlight patterns and correlations.

### Mortgage Calculator | *Python, Financial Modelling, Amortization Tables*

September 2024

- Developed a tool to generate amortization schedules, computing monthly interest, and PMI based on user inputs.
- Computed loan payments with accurate breakdowns of principal and remaining balance over time.
- Implemented Private Mortgage Insurance calculations, adjusting the schedule as LTV decreased below 80%.

### WolfPackInsight | *Java, Graph Algorithms, Social Network Analysis*

February 2024

- Designed software called SocialMediaDesign to organize and output social media service connections efficiently.
- Implemented an algorithm to calculate degrees of separation between two users or report if no connection exists.
- Optimized network traversal using graph-based structures to minimize time and space complexity.
- Achieved almost 95% test coverage using JUnit test cases for comprehensive testing.

### Student Manager | *Java, Sorting Algorithms, Data Structures*

January 2024

- Developed software to minimize runtime using various sorting algorithms and data structures.
- Implemented trees and maps to store data at multiple levels, optimizing performance.
- Managed the project on GitHub to track updates and ensure code versioning.
- Utilized Jenkins to automate testing and verify functionality after each update.

### Parks | *C, Data Organization, Travel Optimization*

November 2023

- Implemented a system to catalog parks and store data using 2D arrays.
- Developed a trip program to track distances between parks and optimize travel routes.
- Built input/output functionality to manage and track ticket sales and usage.
- Improved user interface to allow for easy addition and deletion of park data.

## TECHNICAL SKILLS

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

**Frameworks:** Node.js, JUnit

**Developer Tools:** VS Code, Visual Studio, PyCharm, Eclipse, BBEedit, Github, Git, Jenkins, Spyder

**Libraries:** pandas, NumPy, Matplotlib

**Office Software:** Microsoft Excel and Microsoft Word

## EXPERIENCE

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### Sports Program Evaluator and Official

January 2023 – Present

*Wellness and Recreation at North Carolina State University*

- Managed a team of 6-8 referees, ensuring efficient game operations and equitable participation for all players.
- Spearheaded game-day logistics and upheld program standards for fair play and sportsmanship.

### Resident Advisor and Mentor

May 2023 – December 2023

*Student Housing at North Carolina State University*

- Cultivated an inclusive living and learning experience through residential engagement for a batch of 40+ students.
- Provided guidance and support to help students improve academically and socially.