

# Dhruv Patel

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## Education

### Rutgers University

School of Arts and Science

GPA: **3.79 / 4.00**

Awards: Deans List for 4 Semesters

**Bachelor of Science in Computer Science**

**Bachelor of Arts in Data Science**

Expected Graduation: May 2026

**Relevant Skills:** (*Proficient*): C, R, Java, JavaScript, Python (*Familiar*): MATLAB, XML, HTML, SQL

## Work Experience

- **Tech Consultant** *Target Corporation* *June 2021 -- Present*
  - Personalize tech solutions and engage with guests by providing a clear understanding for products, such as imaging and office, tv and home electronics, portable electronics, and accessories.
  - Fundamentals include inventory management, pricing, guest shopping patterns, and promotion strategies.
  - Must demonstrate skills in problem-solving, continuous learning, and time management.
- **Systems Intern** *Generations Plus* *February 2020 – June 2022*
  - During pandemic help transition to remote and created programs for senior citizens.
  - Established new rules and changes for data management and security.
  - New changes used on daily basis and responsible for technical support.

## Projects

- **Navigation Simulator**
  - Produced a demo of an application in C to utilizing complicated algorithms such as Dijkstra's.
  - Demonstrates the importance of optimization through real time display of different algorithms.
- **Cache Emulator (For L1 & L2 Cache)**
  - Emulation of Cache on x86 processor using C in order to recreate the CPU by managing tens of thousands of lines while integrating multiple cache replacement policies such as LRU and FIFO.
  - Created framework for modularity that allows for easy expansion from L1 cache all the way to L3 including changes for size and blocks.
- **Heart Failure Prediction**
  - Using R programming and collaborating in a team, we first looked through the data and thoroughly analyzed the different factors and implications that it had on the likelihood of someone having heart disease.
  - We utilized functions rpart and naive bayes, in which we developed two predictive models and compared the two by implemented cross-validation into our code to ensure the accuracy of our models and adjusted our model according to the results
- **2048 (Game)**
  - Integrated 2048 using Java while optimizing user inputs and creating drivers and graphics for animation.

## Activities

- HackRU Spring 2024
- Creation of Games Society 2023-2024
- Undergraduate Student Alliance of Computer Scientists 2022-2024