# Nitya Thakkar

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#### Education

Brown University, Sc.B. Computer Science, GPA: 3.92/4.0

Providence, RI • May 2023

Relevant Coursework: Introduction to Object-Oriented Programming and Computer Science (CS15), Introduction to Algorithms and Data Structures (CS16), Introduction to Computer Systems (CS33), Multi-variable Calculus (MATH180), Linear Algebra (MATH520)

#### St. Paul Academy and Summit School, GPA: 3.99/4.0

St, Paul, MN • June 2019

Honors: Cum Laude Society, Ethel E. Pease Award for excellence in mathematics (2019), National Merit Scholar, AP Scholar, Rensselaer Medal (2018), Target Women in Science and Technology EPIC Award (2018), 2017 MN Gold Bilingual Seal for ACTFL Intermediate-High Proficiency in Spanish

## Work Experience

### Teaching Assistant at Brown University

Jan. 2021 - Present

• Teaching Assistant for Linear Algebra (MATH520), responsibilities include grading problem sets and holding weekly office hours

Full Stack at Brown Sept. 2020 – Present

- Full Stack Software Engineer, code projects for the Brown and Providence community
- Creating a website for a student group involving front-end work in React and back-end work in Node + Express (implementing a database of users with login functionality)

# Select Programming Experience

- Doodle Jump, Tetris and Othello (AI feature implemented using Minimax algorithm) games (Java; CS15; 2019)
- Implemented Seamcarve algorithm, removing least important pixel "seams" from an image (Java; CS16; 2020)
- Implemented a Shell, the malloc, realloc, and free commands, and a database involving a TCP protocol, multithreaded programming, and signal handling (C; CS33; 2020)
- Designed an app to assist people with allergies when abroad; Select features: translations for at least 20 major countries of words and phrases, location tracking Google APIs (JavaScript and Android Studio; 2018)

Programming Skills: Proficient in Java, Python, and C; Experience with JavaScript, HTML/CSS, Assembly, and R

## Research Experience

# Brown University, Computational Biology Lab

Jan. 2020 - Present

Dr. Ritambhara Singh

- Co-author on project to predict interactions (A/B compartments) between genes using regression and classification algorithms (ex. linear regression, random forest model), project to be presented at the ENCODE project consortium
- Reproducing and expanding on previous results to derive compartments from Hi-C data (using Python, R, and Git)

#### University of Massachusetts - Amherst, Food Science Lab

July 2018 - Aug. 2018

Dr. Yeonhwa Park

- Determine the effects of Sulforaphane on aging, obesity and oxidative stress in Caenorhabditis elegans. Extensive data analysis using Statistical Analysis Software, GraphPad Prism, and SPSS
- Received awards for presentation and paper at Twin Cities Regional Science Fair and Minnesota State Science Fair (March 2019), qualified as a finalist for the Intel International Science and Engineering Fair (May 2019)

#### Additional Involvements

# Brown Abhinaya: Bharatanatyam

Sept. 2019 - Present

- Completed Arangetram, 2-hour long stage debut performance, in 2015
- Professional production in high school, "Ritu The Seasons": four major performances in Twin Cities (2016-18)

Journalism Sept. 2019 – Present

- Staff writer for The Brown Daily Herald
- Editor-in-Chief of Aureus, feature magazine, and news editor for online publication, RubicOnline (2016-19)

## Brown Elementary After-school Mentoring

Jan. 2020 – Present

• Volunteer with and mentor 2nd-grade students once a week at local elementary school