TEJAS SAMEERA

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EDUCATION

Rutgers School of Arts and Sciences *Piscataway, NJ*

Expected Graduation Date: May 2022 *GPA: 3.70*

RELEVANT COURSEWORK

Data Structures, Discrete Structures, Systems Programming, Computer Architecture, Linear Algebra, Multivariable Calculus (High School)

WORK EXPERIENCE

CodeNinjas | *Code "Sensei"* ***March 2020 - Present***

- Lead efforts in organizing an effective and thought provoking new method of gauging student understanding of core programming concepts through the use of skill based and interactive examination tools.
- Implemented a framework as the lead Python instructor to help engage students in a more efficient manner during the times of on-line sessions during the COVID-19 pandemic.

UIM Consolidated | *SAT Tutor* ***August 2018- Present***

- Implemented multiple test taking strategies for 5 current and 3 prior students.
- Lead students through weekly 1:1 sessions to ultimately guide them to at least a 1450/1600 score

South Brunswick High School | *AP Computer Science Tutor* ***May 2017- 2018***

- Spearheaded and founded the committee for undertaking committed high school students who struggled during the Advanced Placement level course: AP Computer Science A, but showed passion for the subject.

SIDE PROJECTS

Computational

- ***Versioning Control System (GIT recreation) (C)*** A multithreaded program implementing a server- (multiple) client relation to recreate the functionality of GIT. Some of the capabilities include: commit, push, pull, rollback for any number of projects.
- ***Little Search Engine (Java)*** The objective of this search engine is to gather and index keywords that appear in a set of plain text documents, searches keywords against the index and return a list of matching documents in which these keywords occur. This simple version of the project could be used as a framework to to more complicated tasks.
- ***Circuit Simulator (C)*** A circuit simulator that takes in multiple input files with circuit description directives and utilizes bit logic as building blocks to perform the intended operations and output the end circuit truth table that contains all possible outputs for all the possible combinations of input variables. Written in C utilizing a unique implementation of a HashMap with an array element inside a Struct to dynamically allocate and deallocate memory.

Game Development

- ***Flappy Bird (Java)*** A simple rendition of the classic game called "Flappy Bird" Written fully in java utilizing an ActionListener and multiple sprite images. Performs at near 60 frames per second due to the full incorporation of a separate renderer class.
- ***Fall Down (Swift)*** A redesign of the another classic game written fully in Swift implementing Swift Graphics and SpriteKit. Runs smooth 60 frames due to efficient memory management. The objective of the game is to avoid the laser that is constantly hunting the player down.

Statistical Analysis

- ***Prediction Challenges.(R)*** Used multiple machine learning packages in R such as: rpart and caret to draw predictions about certain variables given a particular data set. This notion of prediction is applicable in multiple other Data science related projects.

SKILLS

Languages: Java, R, C, Latex, Swift, C++, Python, HTML, CSS, JavaScript, Node.js, Assembly Language

Technologies: React.js, Amazon Web Services (AWS)

Frameworks Swing, Flask

LEADERSHIP / EXTRACURRICULAR

Delta Sigma Iota (Delta Chapter) - National Multicultural Service Fraternity | *Scholarship Chair, Fundraising Chair, Rush Chair*

- Organized various recruitment events, which range from informational sessions to community service events, for over 40 students of various ethnicities, ages, and educational backgrounds.
- Created outline for chapter study hours that increased overall chapter GPA by 0.1 in the first two semesters it was instituted
- Led efforts to raise $2000 in less than 8 weeks by planning community service, social, and professional events that encouraged charitable giving within the Fraternity and the community.

Clarinet Player

- 7 years of experience. 1st chair in the Wind Ensemble of South Brunswick High School for 2 years.
- Awarded Section Leader's award for improving overall tonality of the clarinet section by a significant margin

Computer Builder

- Avid lover of building Gaming Computes and investing in computer parts.. Became interested in 2018. Built 3 PC's in 2019.