Tathya Shah

tathya.shah@outlook.com | Linkedin | tts49@scarletmail.rutgers.edu | (908) 240 2963

SKILLS

- Proficient in Java, Python, HTML and CSS, R, MATLAB, JavaScript, JQuery, ReactJS, NodeJS, and THUNKABLE.
- Data Visualization and Analysis
- Database Management
- Software Development
- Proficient with Microsoft Office: PowerPoint, Excel, and Access.

EDUCATION

Rutgers University - New Brunswick, NJ   *Expected May 2025*

   ***GPA:* 3.88/4.00**

   <u>***Honors in Bachelor of Science***</u> with a <u>***Major***</u> in Computer Science; <u>***minor***</u> in Data Science (Dean's List (Fall 2022; Spring 2023; Fall 2023)

   Relevant Coursework*:* Calculus I; Calculus II, Introduction to Computer Science; Discrete Structures I; Linear Algebra; Data 101; Discrete Structures II; Computer Architecture; Statistical Inference for Data Science

PROFESSIONAL EXPERIENCE

Rutgers University – *Learning Assistant; NJ, USA*   *August 2023 – Present*

- Utilized effective communication strategies to engage over 500+ students in active learning and foster a positive educational environment.
- Showcased leadership skills by mentoring and guiding students, fostering a culture of continuous learning and improvement.
- Exhibited strong interpersonal and communication skills in collaborating with faculty members to identify learning objectives and align tutoring strategies.
- Leveraged leadership qualities to effectively manage student queries and concerns, ensuring a smooth and productive learning experience.

Rutgers University – *Research Intern; NJ, USA*   *April 2023 – Present*

- Conducted research on photonic superlattice structures, focusing on optimizing their reflectance and transmittance. Developed an innovative algorithm to maximize the thermoreflectance coefficient of materials and surfaces within a scattering matrix, significantly enhancing the performance of the structures.
- My team and I used MATLAB for the front-end algorithm development that had optimizing functions, and we implemented ML methodologies to design an optimizing algorithm for a scattering matrix with different materials for microchip temperature industrial sensors.
- Developed a structured understanding of programming in MATLAB and honed algorithm development skills alongside data visualization through R and SQL for the research.

Clover Medical Center – *Student IT Intern Assistant;* Dubai, UAE   *April 2019 - July 2019*

- Created and designed an Excel sheet with an integrated A.I. database using PyCharm and Python. It took the information from a dynamic SQL database and a public library. It generated real-time updates to the Excel sheet to help organize and smoothen the workflow of the branch.

Personal Projects

Interactive Video Game GUI Development

- Developed a dynamic and visually appealing personal portfolio website showcasing my skills and projects using a full-stack approach. Leveraged HTML and CSS for responsive design, ensuring an optimal viewing experience across various devices. Implemented the server-side using NodeJS, creating a robust backend to handle data and requests. Incorporated ReactJS to build an interactive and seamless user interface, enhancing the overall user experience. Employed JavaScript and JQuery for client-side scripting, adding dynamic elements and smooth animations, even for the mobile version of the website. The website is hosted as my personal portfolio, demonstrating the successful deployment of a full-stack web application.

Interactive Video Game GUI Development

- This project encompasses data structures and algorithms. I have built an interactive game using Java, with a Java UI, that utilizes and showcases strong problem-solving and software development. Moreover, I leveraged object-oriented programming to create a clean and maintainable database and implement an intuitive user interface. This project exemplifies my ability and credibility to transform complex concepts into practical solutions.

Working Mobile Application (FineQuo) – Finalist

- Developed an application with integrated A.I. that helps promote a healthy lifestyle by gifting the user points for completing fitness-related tasks using THUNKABLE and SQL with the variables package/library. I was a part of the core group that developed the A.I. that would detect changes in the stimuli using a camera and determine whether the given task was completed using an in-app neural network to apply the A.I.