

RISHIK SARKAR

+1-732-783-8669 | rishiksarkaro2@gmail.com | github.com/RishikSarkar | rishiksarkar.com

EDUCATION

Rutgers University-New Brunswick

BS in Computer Science, Cognitive Science (GPA 3.83)

- SAS Honors Program
- SAS Dean's List (2020 – 2023)

New Brunswick, NJ

Sep. 2020 – (May 2024)

EXPERIENCE

SAT/ACT Tutor

The Princeton Review

Jan 2023 – Present

Princeton, NJ

- Designed and implemented customized study plans for high school students to improve their SAT/ACT scores
- Utilized innovative teaching technologies and instructional design principles to motivate students and promote academic excellence

ML Research Intern

Abraira Lab

May 2022 – June 2022

New Brunswick, NJ

- Utilized MoSeq and other tools to preprocess video data for a supervised ML model in a Computational Neuroethology observation study
- Conducted annotation and analysis of videos of rodents with spinal cord injuries to generate high-quality training data for the model

PROJECTS

UniDB | MySQL, Java, Python, JDBC, Beautiful Soup, Jupyter

Mar 2023 – Apr 2023

- Generated data for 100 university students using various data structures and scraped course data from Rutgers University websites using Beautiful Soup and requests
- Created a MySQL database containing realistic data for 100 students and their majors, minors, total credits, and class schedules (generated from a list of more than 250 distinct scraped classes)
- Developed a Java application using the JDBC API to query data from the MySQL server

Mood Tunes | Python, Keras, OpenCV, Pandas, Matplotlib

Jan 2023 – Feb 2023

- Developed a Keras model that classifies emotions from facial expressions and recommends songs based on the predicted mood
- Utilized OpenCV and a Haar Cascade classifier to preprocess input image data, improving the model's accuracy
- Conducted data analysis and created visualizations using Pandas and Matplotlib

ReChord | Python, JavaScript, TensorFlow, Jupyter, AWS, React

Dec 2022 – Jan 2023

- Trained a TensorFlow object detection model to identify guitar chords from a video feed in real-time
- Integrated the model into my personal website using JavaScript, TensorFlow.js, and React
- Created a functional pipeline, enabling musicians to quickly and accurately identify chords using the model

Anim.ai | Python, JavaScript, scikit-learn, Flask, Gunicorn

Dec 2022 – Jan 2023

- Trained a scikit-learn recommender system that generates movie recommendations based on user input
- Deployed the recommender system as a web app using Flask and Gunicorn
- Implemented a cosine similarity matrix that utilizes genre and plot synopsis as parameters to generate accurate recommendations for users

TECHNICAL SKILLS

Programming Languages: Python, Java, C++, C, JavaScript, HTML, CSS, SQL, MATLAB

Frameworks: TensorFlow, PyTorch, OpenCV, Flask, Beautiful Soup, React, Node.js, Tailwind

Tools: Git, Jupyter, Pandas, NumPy, Matplotlib, Keras, SciPy, scikit-learn, AWS, JavaFX, JDBC

Natural Languages: English (Native), Bengali (Native), Hindi (Advanced), Japanese (Intermediate)

Other Skills: Teamwork, Problem-solving, Time Management, Communication, Leadership