RISHIK SARKAR

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EDUCATION

Cornell University   Aug 2024 – (May 2025)
Master of Engineering in Computer Science   *GPA: 3.9/4.0*

Rutgers University-New Brunswick   Sep 2020 – May 2024
Bachelor of Science in Computer Science (Honors), Cognitive Science   *GPA: 3.9/4.0*
  – Honors: Summa Cum Laude, SAS Honors Program, Phi Beta Kappa, Dean's List

EXPERIENCE

Software Engineer (Contract)   Oct 2024 – Nov 2024
AllAboutID   *New York, NY*
  – Built a secure, streamlined asset management system for an interior design startup, leveraging **MongoDB Atlas** for scalable data storage and dynamic **SVG** handling for on-the-fly asset integration.
  – Developed a responsive frontend using **Next.js** and **Tailwind CSS**, enhancing asset visualization and overall user experience.

Research Assistant   Sep 2023 – Aug 2024
Princeton University (CCNP)   *Princeton, NJ*
  – Engineered a Python-based **ETL pipeline** to consolidate 800+ Excel, CSV, and JSON files from five clinical studies into a unified **SQLite** database with automated schema generation and key constraints.
  – Designed a streamlined **Tkinter** GUI for non-technical researchers to execute custom SQL queries and perform advanced **CRUD operations** via **Pandas**, simplifying data analysis workflows.

Full-Stack Developer Intern   Jun 2023 – Dec 2023
Provenir (Fintech)   *Parsippany, NJ*
  – Developed an automated credit risk decisioning system by integrating multiple ML models (Decision Trees, Random Forests, XGBoost, RNNs) with **scikit-learn** and **TensorFlow**, achieving 95% accuracy and supporting 95% fully automated underwriting.
  – Enhanced model transparency with **SHAP/LIME**, wrote 100+ unit tests (**MockMvc**), and streamlined **Minikube** deployments, boosting reliability by 20% and reducing time-to-decision by up to 98%.
  – Refined API endpoints for artifact generation and log retrieval to enable real-time monitoring, driving continuous improvements and contributing to a 135% increase in conversions.

PROJECTS

ReddiGist | *Next.js, Flask, TypeScript, NLP, Supabase*   Oct 2024 – Present
  – Developed a full-stack web application that analyzes Reddit discussions by processing up to 5,000 comments per request using multi-threaded retrieval and n-gram detection for accurate summarization.
  – Optimized performance with **LRU caching** and batch processing, and managed data persistence via **Supabase**.
  – Planning integration of **RoBERTa** for advanced semantic analysis and an analytics dashboard for real-time insights.

Tch.ai | *Next.js, Tailwind, Flask, Keras, OpenCV, Pandas, MySQL*   Apr 2023 – Jul 2023
  – Built a full-stack web application deploying a **Keras** image classifier and tokenizer to recommend songs based on mood predictions from facial expressions and text.
  – Trained the model on the **FER-2013** dataset using **OpenCV** with a Haar Cascade classifier, achieving ∼96% training and >70% validation accuracy.
  – Designed a **Next.js/Tailwind CSS** frontend supporting multiple genre selection methods and integrated a remote **MySQL** database for user account management.

TECHNICAL SKILLS

Languages: Python, Java, C++, JavaScript, C, SQL, C#

Web Technologies: HTML, CSS, Next.js, Tailwind CSS, Flask, Spring

Databases/DevOps: MySQL, MongoDB, SQLite, JDBC, Supabase, Docker, Kubernetes, Jenkins, Amazon AWS, Git, Jira

Theory/Concepts: Data Structures & Algorithms, Object-Oriented Design, Design Patterns, System Design, Distributed Systems, Version Control