

Saad Kashif

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Education

Hunter College, City University of New York

B.A. in Computer Science, Minor in Math & Economics

New York, NY

Expected May 2026

- **Award:** 1st Place, 2023 Congressional App Challenge (NY-13); Developed a model application using ML-based algorithms to deliver personalized learning pathways tailored to individual student needs.

Technical Skills

Languages: Python, C++ 20, Java, TypeScript/JavaScript, Swift, Scala, SQL, HTML/CSS

Frameworks & Libraries: React, Next.js, Node.js, React Native, SwiftUI, Pandas, NumPy, TensorFlow

Cloud & DevOps: AWS (EC2, S3, RDS, ECS), Docker, Jenkins, Firebase, Git

Databases: PostgreSQL, MySQL, MongoDB, Redis, GraphQL, Core Data

Experience

StudyGenius - Project of the CUNY Stem Institute

Software Developer

New York, NY

Sep 2023 – May 2024

- Designed and Developed a React+D3.js dashboard to provide educators with real-time visualization of student performance data.
- Developed Python scripts using Pandas to automate data cleaning and feature extraction, which helped accelerate the experimentation cycle for the team's student drop-off prediction model.
- Helped the team reduce p99 latency by 22% on a key user data endpoint by implementing a Redis write-through caching module, alongside unit tests to ensure data consistency.
- Accelerated the CI/CD pipeline by restructuring the project's Dockerfile to better leverage layer caching, which cut the container build stage significantly and contributed to a team-wide reduction in deployment time.

CUNY Research Foundation x NYC DOE

Research Assistant

New York, NY

Jun 2023 – Aug 2023

- Analyzed survey/interview data from 200+ students to identify key behavioral and instructional factors driving engagement and retention, aiming to find solutions to improve student participation and academic performance.
- Presented findings to senior faculty, forming the blueprint for the development of an AI-driven classroom platform.

Projects

StoneRidge – simulated banking platform

Next.js, TypeScript, AWS, Plaid API

- Engineered a full-stack banking app with JWT-based authentication and role-based access control (RBAC). Secured sensitive user data at rest in RDS using field-level encryption.
- Reduced user onboarding time by 60% for beta users by integrating Plaid API for instant bank account linking.

Clippr – Video Sharing App

React Native, Firebase, FFmpeg

- Developed a video-sharing app featuring a content-based filtering feed (ranking content by user-interaction tags) and an FFmpeg-based backend for video transcoding.
- Simulated 500+ concurrent users with Locust to stress-test backend workflows (login, feed, interactions, uploads), ensuring sub-second feed loads and stable performance.

Memorize! – iOS Game

SwiftUI, Core Data, AVFoundation

- Developed an interactive iOS card-matching memory game with custom animations, transitions and sound design using AVFoundation.
- Implemented offline persistence using Core Data, allowing users to save high scores and game progress seamlessly.