

Kshitij Kulshrestha

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EDUCATION

Georgia Institute of Technology
Master of Science in Computer Science

Expected December 2028
Part-time, Online — Starting January 2027

The University of Texas at Dallas
Bachelor of Science in Computer Science

May 2025
Richardson, TX

EXPERIENCE

Software Developer
Paycom

June 2025 – January 2026
Irving, TX

- Delivered **50+** features, bug fixes, and enhancements developing enterprise **full-stack** applications using **PHP, React, RESTful APIs, SQL (MySQL), and Git** in an **Agile** environment
- Engineered **backend** access-control logic and REST API authorization that disabled services for former clients while preserving **read-only** historical records, reducing operational costs
- Refactored backend-generated reporting by tracing data across **PHP services, SQL queries, REST APIs, and React components**, contributing to an estimated **25% reduction** in reporting-related support tickets
- Modernized UI components and verified responsive behavior across desktop and mobile viewports using Chrome DevTools
- Validated changes using automated test suites, manual regression testing, Docker-based environments, and GitLab pipelines

Software Engineer Intern
TuneTunnel

June 2024 – August 2024
Remote

- Built internal **full-stack** tools for TuneTunnel using **React, JavaScript, RESTful APIs, GitHub, and Agile** development practices across its music-distribution platform
- Improved workflow efficiency by **20%** through reusable React components, Material UI, HTML/CSS
- Integrated **RESTful APIs** into frontend components validating request behavior and JSON via Postman
- Collaborated cross-functionally with the CTO to ship features through month-long Agile sprints using GitHub version control
- Deployed and configured application services on **AWS EC2**, running in a cloud-hosted production environment

Rex K-12
Programming Instructor

May 2024 – July 2024

- Taught HTML, CSS, and Scratch fundamentals to **60 students**, translating technical concepts into hands-on lessons
- Recognized as a **top-rated instructor** for creating an inclusive, engaging, and accessible learning environment

PROJECTS

Swift Cards | *Next.js, TypeScript, Clerk, Firebase, Stripe, Groq API, Llama 3.1, Material UI*

- Developed an AI-powered flashcard platform that generates personalized study decks from user prompts using the Llama 3.1 language model through the Groq API
- Implemented secure authentication with Clerk, cloud data persistence using Firebase Firestore, and Stripe subscription billing for premium AI-powered features
- Built reusable React components, optimized client-side performance, and deployed a production-ready Next.js application with responsive cross-device support

Elmo ↗ | *AWS(Lambda, DynamoDB, S3, Cognito, API Gateway), Next.js, TypeScript, Tailwind, DeepSeek, Pinecone*

- Built an AI-driven news platform using a locally hosted DeepSeek LLM and constrained prompt engineering to generate grounded, multi-source article summaries
- Developed a Pinecone-based retrieval-augmented generation pipeline for real-time article retrieval and context-aware filtering
- Implemented a serverless AWS backend using Lambda, DynamoDB, API Gateway, and Cognito for authentication, article retrieval, and automated content delivery

Feelings Behind Words ↗ | *Python, BERT, ResNet-18, SemEval 2021*

- Trained a multimodal machine learning model using **Python, PyTorch, BERT, ResNet-18**, and deep learning techniques to classify 22 persuasive techniques with **89.2% accuracy**

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, PHP, SQL, C++, HTML, CSS

Frameworks: React, Next.js, Material UI, Tailwind CSS, Node.js, Flask

Developer Tools: Git, Docker, GitLab CI/CD, Postman, Chrome DevTools, MySQL Workbench

Cloud and Data: AWS EC2, Lambda, API Gateway, DynamoDB, Cognito, MySQL, MongoDB, Firebase, Pinecone

AI/ML: PyTorch, BERT, CNNs, Retrieval-Augmented Generation, Prompt Engineering, DeepSeek

LEADERSHIP

User Experience Club (UX Club)
Vice President

October 2023 – May 2025
Richardson, TX

- Led a 22-person officer team and organized 12 events, overseeing programming, operations, sponsorships, and marketing
- Founded and led a 24-hour Design-a-thon attracting 220 signups and securing sponsorships from JPMC, Palantir, CBRE