

Ruhan Malik

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EDUCATION

University of Texas at Dallas

B.S Computer Science, Certificate of Data Science

Expected May 2027

- **Relevant Course Work:** Software Engineering, Operating Systems, Adv C++, Data Structures & Algorithms, Adv Java, Unix Environment, Scientific Computing using Python, Intro to Data Analysis, Linear Algebra.

CERTIFICATIONS

Amazon Web Services Practitioner Certificate: Demonstrated foundational knowledge of AWS cloud computing services, including core services, security, architecture, and support models across compute, storage, database, and networking domains.

EXPERIENCE

Emergent Method

June 2025 – August 2025

Project Intern

Baton Rouge, LA

- Performed comprehensive **SQL** database validation across multiple **testing environments** by writing complex **queries** to verify **data integrity** and accuracy in databases with **100,000+** records, ensuring schema changes and data transformations were correctly implemented.
- Collaborated on an enhancement team with UAT, SIT and DEV teams on a **Deloitte** project using **Agile** methodology, creating and updating **user stories** in **Jira** while participating in daily sprint meetings, backlog refinement sessions, and troubleshooting reported issues to ensure successful project delivery.

PROJECTS

EPUB Audiobook Generator | Electron.js, Fast API, Pytorch, Kokoro TTS, Ebooklib

June 2025 – November 2025

- Architected GPU-accelerated EPUB to audiobook system achieving **2400%** performance improvement via **CUDA** optimization and **PyTorch** with memory-optimized chunking algorithms for **2.4M+** characters.
- Engineered **full-stack** desktop application using **Electron** and **React.js** frontend with **FastAPI REST API backend**, implementing **asynchronous** task processing with **UUID-based progress tracking** and real-time **WebSocket**-style polling.
- Built automated **FFmpeg** audio pipeline with intelligent **chunking** for GPU **memory** constraints, reducing MP3 file sizes by **90%** and containerizing backend with **Docker** for deployment consistency.

Web Novel Reader | React.js, CSS, Flask, BeautifulSoup4, Koroko TTS

July 2025

- Built **full-stack** web application using **React** and **Flask REST API** that converts novel chapters to audiobooks, processing text files averaging **5,000+** words and generating streaming audio playback within **30** seconds of submission.
- Integrated **open source Kokoro TTS** with **PyTorch** and **BeautifulSoup** for web scraping, delivering fast and natural speech synthesis of each chapter.
- Implemented real-time audio processing pipeline with **FFmpeg** concatenation and modern UI design, enabling synthesis of full-length chapters into single audio files for seamless user experience.

Portfolio | React.js, CSS, AWS s3, CloudFront | Ruhanweb.com

August 2025

- Deployed to AWS cloud infrastructure using **S3**, **CloudFront**, and **Route 53 DNS** management with automated HTTPS and edge caching, achieving page load time under 2 seconds globally.

LEADERSHIP & EXTRACURRICULAR

UTD EPICS | WalkWithMe.Global

September 2025 – Present

Full stack Engineer | Nuxt.js, Typescript, Vue.js, Tailwind CSS, Prisma, SQLite

- Spearheaded the development of an **data export** pipeline for a **nonprofit** partner within a cross-functional team, architecting data analytics systems; **reduced operational** costs by \$1400 annually.
- Developed a comprehensive **data export** and **data visualization** tool implementing **Power BI** with custom **role-based permissions** (RLS) that restricts data visibility by user role, enabling stakeholders to access tailored dashboards while providing leadership with organization-wide analytical insights.

SKILLS & Interests

Programming languages: Java, C++, JavaScript, HTML, CSS, Python, R, Typescript

Frameworks/Libraries: React.js, Nuxt.js, Prisma, Flask, NumPy, Pandas, BeautifulSoup4

Databases: SQL, SQLite

Tools: AWS, Jira, Postman, Unix Env., GitHub, Figma, RStudio, Kaggle, Excel, Docker

Interests: Reading, Gaming, Pickleball