

Warith Rahman

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EDUCATION

University of Texas at Austin

Austin, TX

Bachelor of Science in Computer Science and Mathematics | GPA: 3.9

May 2027

Relevant Coursework: Computer Architecture (Honors), Data Structures (Honors), Probability I, Linear Algebra

Leadership Experience: Texas Science Bowl (President), UT Programming Contests (Problemsetter)

EXPERIENCE

Undergraduate Teaching Assistant

Aug 2025 – Present

University of Texas at Austin

Austin, TX

- Lead weekly recitations for **200+ students** on topics such as inductive proofs, graph theory, and algorithms

Undergraduate Researcher

Jan 2025 – May 2025

University of Texas at Austin

Austin, TX

- Led data analysis for a study on divergent evolution in *Eurycea* salamanders under Dr. Joseph Dubie; designed an R pipeline using **tidyverse** and **dplyr** to process and visualize **4 million+** genetic data points
- Performed differential expression analysis by comparing gene expression levels across 15 sample sets; identified 20 protein-coding candidate genes and presented results with a 5-member team at the final research showcase

Software Developer

Sep 2024 – Dec 2024

Longhorn Developers

Austin, TX

- Developed features for “UT Registration Plus” (**60,000+ downloads**), contributing in weekly sprint meetings and collaborative QA to streamline extension functionality and improve user experience
- Refactored schedule table and related resources with a component-driven **TypeScript + ReactJS** stack and containerized development/testing using Docker; managed progress via a Jira-style Kanban on GitHub Issues and Projects, producing a more responsive UI that **increased user engagement and downloads by 20%**

PROJECTS

K-Pop Release Predictor | *Python scikit-learn, Next.js, Tailwind CSS, FastAPI*

- Developed a full-stack machine learning web application to predict K-pop group releases within **8-week accuracy**
- Engineered automated data collection pipeline using MusicBrainz API to scrape and process release information from **90+ K-pop artists**, implementing duplicate detection and CSV export functionality
- Constructed an interactive **Next.js frontend** featuring a dynamic timeline visualization, and implemented **Python FastAPI endpoints** for optimized asynchronous requests, returning model **predictions within 2 seconds**

TSB Question App | *Express.js, MongoDB, Tailwind CSS, Render*

- Engineered and launched a full-stack **MongoDB** app supporting secure storage of **900+ tournament questions**
- Streamlined workflow by unifying question uploads and automating LaTeX packet generation in consistent format, using a CSV upload parser to support cross-team collaboration and **reduce compilation time by 100x**

UIL Hub | *Python Flask, Node.js, HTML, CSS*

- Built a **Flask** app to scrape UIL results from SpeechWire, **reducing query time by 10x** from original CLI script
- Integrated real-time sorting and multithreading for CSV export filtered across contests, regions, and classifications

ACHIEVEMENTS

Top 300 at DoD Cyber Sentinel CTF 2025

Jun 2025

3rd Place Energy AI Hackathon 2025

Jan 2025

Top 20 Pre-College US teams at PicoCTF 2024

Mar 2024

4x American Invitational Mathematics Exam (AIME) Qualifier

Mar 2024

TECHNICAL SKILLS

Languages: Java, Python, C/C++, SQL (PostgreSQL), JavaScript, TypeScript, HTML/CSS, R, \LaTeX

Frameworks and Tools: Flask, Tailwind CSS, ReactJS, Node.js, Express.js, MongoDB, DynamoDB, REST API, Git, Visual Studio, IntelliJ, Docker, Linux, Microsoft Excel, Tableau

Libraries: Pandas, NumPy, Matplotlib, scikit-learn