# Warith Rahman

(XXX) XXX-XXXX | warithr21@gmail.com | linkedin.com/in/warith-rahman | github.com/warithr621

# **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 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, designing an R pipeline to process and visualize 4M+ genetic data points
- Performed differential expression analysis that identified 20 protein-coding candidate genes, presenting 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) through weekly sprint meetings and collaborative QA, improving extension functionality to ease university registration process
- Refactored schedule table and resources in TypeScript to improve layout clarity, managing progress with a Jira-style Kanban using GitHub Issues and Projects

#### **PROJECTS**

#### K-Pop Release Predictor | Python (pandas, scikit-learn), Next.js, Tailwind CSS

- Developed a full-stack machine learning web application to predict K-pop group release patterns within an 8-week accuracy interval
- Engineered automated data collection pipeline using MusicBrainz API to scrape and process release information from 90+ 21st century K-pop artists, implementing duplicate detection and CSV export functionality
- Constructed an interactive Next.js frontend with an interactive timeline, employing API endpoints via Python FastAPI for outputting predictions within 2 seconds

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

- Engineered and launched a full-stack app maintaining secure storage of 900+ tournament questions in MongoDB
- $\bullet$  Streamlined workflow by unifying question uploads and automated LaTeX packet generation, using a CSV upload parser to enable cross-team collaboration and reduce compilation time by 100x

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

- Built a Flask web 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

#### Game Theory | TypeScript, Next.js, DigitalOcean

• Designed and deployed an interactive online card game with TypeScript and Next.js, enabling real-time multiplayer gameplay and scalable hosting via DigitalOcean droplets

# 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 (Postgres), JavaScript, TypeScript, HTML/CSS, R, LATEX

Frameworks and Tools: Flask, TailwindCSS, Node.js, Express.js, MongoDB, REST API, Git, Visual Studio, IntelliJ,

Docker, Linux, Microsoft Excel

Libraries: Pandas, NumPy, Matplotlib, Scikit-learn