

Raihan Tanvir

raihanntanvir@gmail.com | (650) 769-9012 | github.com/nabitanvir | linkedin.com/in/raihanntanvir

EDUCATION

University of Wisconsin-Madison

Expected graduation date: May. 2025

B.S. in Computer Science

GPA: 3.741

Activities/Awards: Dean's List (Fall 2021 – Spring 2023)

Relevant Courses: Data Structures, Computer Engineering, Linear Algebra, Discrete Mathematics, Machine Organization, Algorithms, Artificial Intelligence, Operating Systems, Big Data

PROFESSIONAL EXPERIENCE

theCoderSchool | Code Coach

May. 2024 - Aug. 2024

- Developed 14 core projects using Python, HTML/CSS/JavaScript, and Scratch.
- Updated documentation and testers, increasing project completion times by 24%.
- Debugged over 100 student projects across multiple programming languages.
- Increased student retention and return rates by 13%, as determined by client satisfaction metrics.

RecordR | Software Engineer Intern

May. 2023 - Aug. 2023

- Built a PHP-based video upload system with QR code linkage for organized user access.
- Configured AWS EC2 and S3 to handle large, concurrent video uploads.
- Developed a responsive UI with HTML, CSS, and JavaScript for initial testing.

PROJECTS

OpenLambda – Go – Supervised by Professor Tyler Caraza-Harter - 2024

- Implemented clone3 call to create cleaner cgroup and namespace provisioning for SOCK containers.
- Optimized OpenLambda manager to watch cgroup event files instead of poll loops.

RaspberryHi! – Python (PyTorch/Keras) – Personal Side Project - 2024

- Built "Berry", my own smart home system using a Raspberry Pi and a webcam.
- Developed a Convolutional Neural Network (CNN) using MFCC feature extraction to integrate the wake word "Berry" and a Siamese network for facial identification.
- Utilized techniques such as transfer learning, hyperparameter optimization, and quantization to achieve a system that runs effectively in computationally restrictive environments.

UW-Madison Tuition Predictor – Python (Pandas/Numpy/PyTorch) – Personal Side Project - 2024

- Compiled and preprocessed tuition, local rent, and relevant data for the University of Wisconsin-Madison.
- Applied a linear regression model to predict total tuition costs, aiding in financial planning and analysis.
- Used Pandas to clean and transform raw data into suitable inputs for training.

LEADERSHIP/INVOLVEMENT

The Software Development Club | Vice President

Dec. 2021 - Present

- Guided a community of 500+ students in professional development, technical skills, and interest.
- Organized workshops, coding sessions, and events to enhance technical skills.
- Increased member retention rate by 36% by redesigning weekly schedules and project goals.

Cybersecurity UW | Technical Chair

Dec. 2021 - Present

- Led presentations on network security, intrusion detection, and Unix vulnerabilities.
- Analyzed member statistics to help understand and improve member retention and involvement.

TECHNICAL SKILLS

Languages: Python, Go, JavaScript, C, TypeScript, HTML/CSS, PHP, SQL

Tools/Frameworks: Git, Docker, Linux, PyTorch, Keras, NumPy, Pandas React, Node.js, Spark, Kafka

Databases: MySQL, MongoDB, Cassandra, HBase