# **Tanzeel Jaffery**

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#### **EDUCATION**

## The University of Texas at Dallas, Richardson, TX

May 2026

Bachelor of Science: Computer Science, GPA: 3.8

Awards: AES Scholarship Recipient

Relevant Coursework: Discrete Mathematics, Computer Science I & II, Computer Architecture, Data Structures

and Algorithms, Malware Analysis

#### **TECHNICAL SKILLS**

Programming Languages: C, C++, Python, Java, HTML, CSS, JavaScript, SQL

Libraries/Frameworks: Pandas, Flask, React.js, Django, MySQL, PyTorch, PostgreSQL, Node.js, Express.js, Springboot

Misc: Git, Github, Microsoft Office 365, Microsoft Office Tools

#### **EXPERIENCE**

#### **SECURENET SOLUTIONS, Plano, TX**

October 2023 - June 2024

Software Engineering Intern

- Successfully designed and implemented a timesheet system using **Python** and **Django**, reducing manual time-entry efforts by up to 1 hour per employee per week
- Developed backend functionalities, including user authentication using Django, designed a REST API, and integrated databases through MySQL, effectively handling data for 1000+ employees
- Utilized React.js to create an intuitive and responsive user interface for entering and viewing timesheet data, resulting in a 1-second decrease in user interface loading times
- Engineered a robust **JWT authentication** system in the application to securely manage user sessions, ensuring protected API endpoints and enhancing overall application security

#### UNIVERSITY OF TEXAS AT DALLAS, Richardson, TX

January 2024 - May 2024

Undergraduate Researcher

- Worked with Professor Brian Ricks on utilizing federated machine learning models to derive insights for Malware Analysis/Classification
- Conducted extensive data analysis and preprocessing on diverse malware datasets, facilitating the integration of multiple data sources into federated learning frameworks
- Implemented and tested federated machine learning models, achieving a 20% improvement in model robustness and reducing the risk of data breaches in malware analysis systems

#### **PROJECTS**

RealtyRadar | Python, Flask, Matplotlib, Plotly, React, TailwindCSS, GPT-4

- Created "RealtyRadar," a user-centric platform that simplifies the home-buying process using React, TailwindCSS,
   and Flask, winning 1st place in Major League Hacking's challenge at HackUTD
- Developed a full-stack application providing real-time financial analysis for potential home buyers, integrating **GPT-4** for customized user interactions and insights.
- Enhanced user experience with data visualization tools like **Pandas, Matplotlib, and Plotly**, offering interactive graphs to depict complex financial data.
- Utilized **Flask** for managing **API interactions**, data processing, and delivering **AI-generated content**, with **Pandas** for **data manipulation** and financial calculations.

### NBA STATISTICS PREDICTOR | Python, Pandas, PyTorch

- Designed and implemented **neural network model** for accurate forecasting of NBA player statistics using **PyTorch** as well as integration of **deep learning**
- Conducted iterative model refinement and hyperparameter tuning for enhanced prediction accuracy
- Utilized Pandas for data preprocessing and organization
- Used machine learning algorithms to implement prediction models for NBA Players as well as NBA Teams

### **HONORS AND AWARDS**

AES Scholarship Recipient, International Baccalaureate Diploma