

# KHAWAJA HUSSAIN AHMED

(702) 348-9820 | khawajaahmed\_2025@depauw.edu | Greencastle, Indiana

[GitHub](#) | [LinkedIn](#) | [Portfolio](#)

## EDUCATION

### DEPAUW UNIVERSITY

Aug 2021 - May 2025

Bachelor of Arts in Computer Science, minor in Data Science & English Literature

- **Cumulative GPA:** 3.50/4.00
- **Relevant Coursework:** Data Structures & Algorithms, Object Oriented Software Development, Discrete Mathematics, 3D Game Development, Data Mining, Data Science, Data Vis. With Tableau, Artificial Intelligence, Statistics for Professionals.
- **Awards:** Kneale Scholarship, International Merit Grant, Margaret Noble Lee Debate Prize, Dean's List (6-Time Honoree).
- **Leadership:** Lead Resident Assistant, Events Coordinator MSA, Founder & VP Table Tennis Club.

## EXPERIENCE

### AI/ML Engineering Project Lead: [Reinforcement Learning Game](#)

Apr 2024 – May 2024

DePauw University

- Developed a Python command-line game, contributing over **100 LOC**.
- Integrating **Q-learning** to optimize computer's strategy, achieving substantial **AI agent learning** within **6** game iterations.
- Implemented **4+** unit tests in **Python** using 'unittest', improving software reliability and codebase maintainability.
- Completed **6+** git commits via **Git CLI**, ensuring version control and streamlining project organization.

### Principal Data Science Researcher: [NFL QB Ratings Analysis](#)

Jan 2024 – Feb 2024

DePauw University

- Contributed **115+ LOC** in Python, automating QB rating analysis and significantly **decreasing** manual effort by **80%**.
- Performed **data wrangling** and **EDA**, visualizing **6+** graphs leveraging **matplotlib**.
- Implemented **ETL** techniques, slashing **feature extraction** and **data loading time** by **40%**.
- Conducted **OLS** regression analysis utilizing **statsmodel**, boosting model clarity and prediction accuracy by **15%**.

### Data Analysis Research Lead: [Statistical Analysis of University Debt Disparities](#)

Nov 2023 – Dec 2023

DePauw University

- Led a **2-person** team to analyze data from **85+** universities, identifying a **25%** higher average debt for private university graduates and enhancing stakeholder understanding by **18%**.
- Conducted a two-sample t-test using **R** to compare graduate debt, **boosting analytical precision** by **20%**.
- Created **4+ visualizations** employing **ggplot2** in **RStudio**, **decreasing data interpretation** time by **30%**.

### 3D Printing Team Lead

Jun 2023 – Aug 2023

Tenzer Technology Centre

- Led a **2-person** team to **optimize** 3D designs, increasing client satisfaction by **20%**.
- Developed intricate 3D **CAD** models with **95%** design accuracy, significantly improving product visualization and reducing material waste by **15%**.
- **Troubleshoot** issues in 3D models and printing processes, **minimizing delays** by **25%** ensuring on-time project delivery.

### Lead UI Designer & Presenter

Nov 2022 - Dec 2022

WiCS @ DePauw

- Pitched an **iOS** app UI designed with **Figma**, boosting student-career connections by **30%**.
- Secured **3rd** place in the hackathon, outperforming **20+** contestants with a **90%** assessment score.

## PROJECTS

### [Real-Time Speech AI Assistant](#)

- Developed a customizable AI assistant with role-based functionality, delivering personalized responses to users' queries.
- Leveraged LLM ollama3, assemblyAI, and ElevenLabs APIs to minimize response time substantially.

### [Customer Segmentation Analysis](#)

- Conducted RFM analysis and K-means clustering on retail data from an online e-commerce platform, driving targeted marketing to increase customer retention.

## SKILLS & EXPERTISE

### Technical Skills

- **Programming Languages:** Python, R, C++, Java, Swift, assembly, C#, SQL.
- **Technologies/Frameworks:** git/GitHub, Markdown, Linux/Bash Scripting, Tableau, Figma, Unity Hub, Cura, Visual Studio, CAD, numpy, matplotlib, statsmodels, assemblyai, openai-whisper, elevenlabs, ollama/llama3, Excel, Google Sheets, SQLite, Java API, SwiftUI, RStudio.
- **Languages:** Fluent in English, Urdu and Punjabi; Elementary proficiency in Arabic.