Taha Shakeel

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EDUCATION

Carnegie Mellon University Pittsburgh, PA
Bachelor of Science in Statistics and Machine Learning (GPA – 4.0) *May 2027*

- Relevant course work: Statistical Analysis, Linear Algebra, Probability, and Algorithm Design
- Dean's List, High Honors (2/2 semester)

TECHNICAL SKILLS

- Python, R, C, Java, SQL, HTML/CSS, Excel, Git, TensorFlow, OpenCV, MediaPipe, Power BI, Tableau, Power Automate, APIs, Microsoft Office Suite

WORK EXPERIENCE

Software Engineering Intern May 2025 – Present
Stereotaxis *St. Louis, MO*

- Developed an automated email notification system for invoice remittance for thousands of invoices using SQL and the Messaging API, streamlining payment notifications and saving the accounting team at least 5 hours weekly
- Turned complex financial data into actionable insights by building interactive dashboards with Power BI & Excel, enabling targeted recovery of $2M+ in receivables
- Automated invoice approval workflow using Power Automate, reducing average processing time by 87% and increasing scalability across finance operations

Lead Teaching Assistant January 2025 – Present
Carnegie Mellon University, School of Computer Science *Pittsburgh, PA*

- Teach weekly Python lectures on data structures and algorithms to classes of 20 students
- Evaluate assignments, quizzes, and tests, and offer individualized support for hundreds of students
- Lead logistics and coordination for a team of 40 teaching assistants to streamline instruction and grading

PROJECTS

2-D Shellshock | *Python, Git* November 2024 – December 2024

- Developed a 2D tank artillery game in Python with realistic physics simulation using 3D vector calculus for gravity, wind, and collision detection
- Developed a modular AI opponent with adjustable difficulty, integrating strategic aiming, dynamic movement, and adaptive shot selection to simulate realistic, challenging gameplay
- Built a terrain generator via recursive displacement and linear interpolation for smooth, battlefield rendering

Titanic Survival Prediction | *R, RStudio* November 2024

- Built a supervised classification model with machine learning in R to predict Titanic passenger survival
- Performed exploratory data analysis to see survival correlations and cleaned data to improve model performance
- Implemented and compared four models — LDA, QDA, classification tree, and logistic regression — using cross-validation and error rate analysis to evaluate predictive accuracy

Stack'd Overflow (Hackathon Project) | *Python, OpenCV, MediaPipe API, Git* November 2024

- Developed a gesture-controlled 2D game using Python, OpenCV, and MediaPipe API for real-time hand tracking
- Integrated OpenCV with the MediaPipe API to implement real-time wrist tracking via webcam, mapping wrist x-coordinates to plate movement for hands-free game control
- Collaborated with a team of four to design, prototype, and deliver a game within a 24-hour hackathon sprint