Jiawei Guo

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EDUCATION

University of Washington, Seattle, WA   Expected Graduation: June 2027
Sophomore, Bachelor of Science in Computer Science & Informatics
- GPA: <3.92/4.0>
- Relevant Courses: <Data Structures and Parallelism, Deep Learning, Database System.>

EXPERIENCE

51World   Jun 2024 – Sep 2024
Intern | Dynamic Simulation Team
- Conducted research on deep reinforcement learning models on traffic simulation.
- Integrated Milvus vector database to optimize data retrieval speed by 40% and reduce latency.
- Designed parking scenarios compliant with X-EPIC standards.

University of Washington   Sep 2024 – Ongoing
Teaching Assistant | Three Data Science Courses
- Developed python script to automate conversion of Latex homework templates into R Markdown file.
- Held lecture on R programming, data visualization, conditional probability and Bayes' Theorem.
- Worked 150+ hours and helped 100+ students with R programming and Data Science Concepts

Research Assistant   Jun 2024 – Mar 2025
Faith + AI | Social Media Data Collection & Web Archiving
- Evaluated 10+ existing Buddhist chatbots based on user interactions and comments on social media.
- Explore automated archiving workflow using python and ArchiveBox.
- Conducted literature review on Buddhist philosophy and AI ethics.

Research Assistant   Sep 2023 - Feb 2024
Wordplay Dev | Localization & Verification Team
- Built automated unit tests for cross-browser compatibility, resolving 5+ UI/UX issues.
- Streamlined Git workflows for 5 team members, reducing merge conflict by 50%.
- Reviewed and refined Chinese translation to ensure consistency.

TECHNICAL PROJECTS

US Border Traffic Analysis | Python, SQL, Tableau
- Cleaned and processed 10GB+ traffic data using Pandas and SQL, reducing errors by 20%.
- Designed dynamic visualizations using Tableau to model congestion patterns.
- Proposed potential data-driven solutions to address border traffic congestion issues.

MBTI Music Preference Prediction | R, R Shiny, KNN
- Built a music recommendation system using KNN and L2 distance algorithms.
- Created interactive dashboards with radar charts and scatter plots to visualize MBTI music correlations.
- Identified and resolved encoding errors and missing values, reducing preprocessing time by 30%.

COMMUNITY INVOLVEMENT

Village Project INC | Community Website Revamp   Apr 2024 – June 2024
- Led frontend development for a nonprofit organization.
- Developed and maintained user-friendly website and enhanced accessibility.