Zhizheng Wang

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EDUCATION

University of Michigan - Ann Arbor   **Aug 2025 - May 2027(Expected)**
M.S. in Data Science   GPA: 4.00/4.00

University of Georgia - Athens, GA   **Aug 2021 - May 2025**
B.S. in Data Science and Cognitive Science | Minor: Computer Science   GPA: 3.85/4.00
Magna Cum Laude, Classic City Scholar (4 years), Dean's List (8 Semesters)

SKILLS

Programming: Python (4 yrs), SQL (3 yrs), R (4 yrs), Java (4 yrs)
Data Science & ML: NLP, Deep Learning, Regression, Time Series, Data Mining, Data Analysis, Predictive Modeling
Tools: NumPy, Pandas, TensorFlow, PyTorch, Jupyter, Google Colab, Git/GitHub, Linux, LaTeX, Excel, Power BI.

WORK EXPERIENCE

Intelligent Thought and Action Lab (THINC) http://thinc.cs.uga.edu   **February 2024 - September 2024**
Undergraduate Student Researcher   Athens, GA
- Curated a 6,000+ image dataset, enabling a YOLO model to achieve 99% object detection accuracy.
- Automated data workflows with 10+ Python scripts for camera calibration and data extraction.
- Integrated and fine-tuned YOLOv8 into the PrecisionSort software to drive continuous performance gains

Office for Student Success and Achievement (OSSA)   **January 2024 - May 2025**
Peer Tutor (Statistics/Computer Science/Mathematics)   Athens, GA
- Provided constructive feedback and guided problem-solving in one-on-one and group Study Pod sessions
- Mentored over 50 students in academic strategies, enhancing critical thinking and analytical skills

Data Science & Artificial Intelligence Camp (Statistics Department)   **July 2024**
Student Assistant   Athens, GA
- Guided 30 students in data science learning and coding, providing troubleshooting and mentoring
- Assisted instructors with classroom management while fostering collaboration

U.S. Kids Golf   **May 2021 - July 2025**
Volunteer   Little Rock, AR
- Streamlined tournaments for 80+ players by managing registration, award distribution, and tracking scores
- Coordinated daily logistics to support staff and enhance the experience for attendees

PROJECTS

Addressing Data Imbalance: Upsampling vs. Downsampling on Sport Images   *(Python)*
- Resampled a 6,000+ image Sports dataset using NNI, Bilinear, Bicubic, Gaussian Pyramid, SRCNN, and Wavelet
- Improved complex deep learning models to 94% validation accuracy (GoogLeNet/ResNet50) and significantly boosted simpler CNNs, increasing AlexNet by 34% and VGG16 by 22%
- Generated synthetic high-res images with SRCNN/Wavelet to balance classes and improve feature retention

Urban Heat Island (UHI) Prediction Project   *(Python)*
- Predicted UHI intensity for 11,229 NYC locations using satellite imagery, building footprints, and weather data
- Built spatial features and analyzed data, identifying B01, NDVI, and building proximity as key predictors
- Modeled spatial patterns and neighborhood heat using ML, with Random Forest as the top model ($R^2 = 0.636$)

Stock Market Time Series Forecasting   *(Python, R)*
- Analyzed 40+ years (4,700+ trading days) of S&P 500 prices using R (quantmod, rugarch, fGarch, ggplot2)
- Tested 10+ ARMA–GARCH models, selecting ARMA(1,1)–GARCH(2,2) with AIC -6.53, improving fit by 12%
- Built and validated a 14-day volatility forecast on 2024 data; recommended log-transformation to boost accuracy

F-1 Racing   *(HTML, CSS, JavaScript, MySQL)*
- Built and normalized SQL database for 73 years of F1 data (1950–2023) with 12+ tables and key constraints.
- Developed React frontend with 3 analytical queries and custom SQL input, handling 1M+ rows.
- Uncovered F1 trends: nationality dominance, circuit effects on lap times/pit stops, and top drivers on long tracks.

Image Gallery App   *(Java)*
- Built a JavaFX gallery app fetching 200+ media items per search from iTunes API using JSON
- Managed dependencies with Maven and implemented multithreaded downloads for 20+ images concurrently
- Designed an interactive GUI with search, progress bar, and random replacement, improving responsiveness

INVOLVEMENT AND INTEREST

Involvements: UGA Stat Club, Billiard Club of UGA, Ann Arbor & Atlanta Go Club
Interests: Weightlifting, Rock Climbing, Reading, Photography, Go