417-763-4986

## Education

## Ph.D. Management Information Systems: University of Arizona

(Fall 2023-Present)

#### M.S.I.T Accelerated Master's Program

(Fall 2021 - Spring 2023)

Master of Science in Information Technology, GPA: 4.00/4.00

#### **Graduate Certificate: Missouri State University**

(Fall 2022)

Data Analytics, GPA – 4.00/4.00

#### **B.S: Missouri State University:**

(Fall 2019 – Spring 2022)

Bachelor of Science in Information Technology: Application Development, Magna Cum Laude, GPA

 3.91/4.00

### Research Interests

 Machine Learning, Large Language Models, Natural Language Processing, Data Augmentation for Low Resource Environments, Fine-tuning Neural Networks

### Journal Publications

• Nanni L, Trambaiollo L, Brahnam S, Guo X, **Woolsey C.** Ensemble of Networks for Multilabel Classification. Signals. 2022; 3(4):911-931. https://doi.org/10.3390/signals3040054

# **Conference Proceedings**

• Woolsey, C. & Colter, C. (2022, April 22-23). *Utilizing Ensembles to Overcome Small Datasets*. Missouri Space Grant Consortium. Rolla, MO, United States.

# Other (non peer-reviewed)

Woolsey, C. & Tsahiridis, P. K., 2020. Surviving First Year College

# Work in Progress

 Woolsey, C. Bisht, P., Rothman, J., Leroy, G. (2023, September 14). Utilizing Large Language Models to Increase the Performance of Classification Neural Networks. Association of Medical Informatics Summit. Status [Submitted]

# Awards/Honors

- Missouri State Top Master's of Science in Information Technology Award (Spring 2023)
- Missouri State Dean's List (Fall 2019 Spring 2022)
- Honorable Mention USITCC Regional Conference (2021, Security Category)
- OTC Provost's List (Fall 2020)
- Phi Theta Kappa Inductee (Spring 2019)
- OTC Chancellor's List (Fall 2018)

### Service

#### LOGOS: A Journal of Undergraduate Research - Peer Reviewer

(Spring 2021 – Spring 2022)

• Reviewed submissions to determine if acceptable for journal publication

## Work Experience

### **Computer Cluster Development under Professor Jason Speer**

(Fall 2021)

- Created Docker Swarm Cluster via the combination of Raspberry Pis and a network switch
  - Documentation Available Upon Request

#### **NASA Internship**

(October 11, 2021 - May 20, 2022)

- Data Scientist: Applied Data-level ensemble to increase accuracy of microstructure image detector
  - Increased accuracy from 78.48% (Base Model) to 97.03% (Woolsey&Colter Final Model)
- Windows Server 2019 Administrator
  - o Performed maintenance and resolved technical issues within Windows 2019 System Server

#### **Graduate Assistant - Missouri State Department of Criminology** (January 10, 2022 – May 20, 2022)

 Organized and cataloged data regarding Police Officers, Sheriffs, and Public Information Officers for the creation of Criminology marketing campaigns

### Skills

- Machine Learning: Python, PyTorch, TensorFlow, Computer Vision, SQL, MATLAB
- Data Analytics: Excel (Including What-If Tables and Solver), RStudio, Tableau
- Object Oriented Programming: C# Programming, Java, SOLID Principles,
- Web Application Development: HTML, PHP, JavaScript, CSS

### Volunteer Work

### Hosanna Church - Worship Leader

(August 2021 – August 2022)

Coordinated worship team each Sunday through the review and practice of selected material

#### Assistant to Dr. Ajuwon

(Fall 2020)

• Professor Assistant: reviewed documents, research, general office administration

### Other Work

#### Guitar and Ukulele Instructor/ Professional Musician

(August 2016 – December 2021)

- Developed personalized curriculum to students of ages 3-39
- Facilitated instruction of students on a weekly basis through curated literature
- Songwriter and Guitarist
  - Collaborated with peers to develop music for the purpose of regular performances.
  - Average Audience: 300 each night
  - Head songwriter and composer: House Of Rejects. House of Rejects, 2019
  - Songwriter and Studio Musician: Crossing Fire. Coals and Embers, 2017
  - Billboard Charts:
    - Billboard Christian Rock Most Added "Fiction" (2018) #2
    - Billboard Christian Rock Worldwide Radio Airplay "Lay it Down" (2017) #23
    - Billboard Christian Rock Worldwide Radio Airplay "Crash" (2017) #13