

# ALIER RENG

A seasoned data scientist and dedicated educator with over seven years of healthcare analytics experience and over five years of university teaching experience. A results-oriented professional known for efficiently delivering successful projects. Areas of expertise encompass data science, statistics, and deep learning. Passionate about leveraging these skills to drive innovation and make a positive impact.



## INDUSTRY EXPERIENCE

present  
|  
2022

### Sr. Director

ScionHealth

📍 Louisville, KY

- Data Stewardship: Oversee new report development and conduct initial and monthly data validations to ensure data accuracy.
- Collaborate with the subject matter experts and Clinical Operations Leaders to develop National Quality Program (NQP) measures.
- Automate routine tasks with R and create a monthly operations report dashboard using R Shiny.
- Create Quality Measures Specifications document and provide report instructions for hospital leaders.
- Manage and prepare monthly GMLOS Variance Report for Clinical Operations and Care Management leaders.

2022  
|  
2021

### Sr. Data Analyst

Lifepoint Health

📍 Brentwood, TN

- Data Stewardship: performed monthly data validation to ensure data accuracy before being pushed to PowerBI for hospitals' use.
- Supported and assisted hospitals and the HSC departments with their data needs.
- Performed exploratory and predictive analysis with R and Python.
- Created and modified divisions and hospitals' NHSN Goals, MOR, and QOC reports and dashboards using R and PowerBI.
- Onboarded and trained new team members.

2021  
|  
2016

### Data Analyst

Lifepoint Health

📍 Brentwood, TN

- Cut QOC and MOR decks production time by 80% by automating reports with R Shiny.
- Reduced data errors and optimized accuracy by automating CHOIS monthly mortality reports with R Shiny.
- Used R to automate the CMS company-wide VBP, HAC Penalty, and MSPB reports extraction processes.

## CONTACT

✉ [tongakuot@icloud.com](mailto:tongakuot@icloud.com)  
🔗 [Projects](#)  
🌐 [alierwai.org](http://alierwai.org)  
🐙 [github.com/tongakuot](https://github.com/tongakuot)  
📺 [@AlierwaiDataStudio](https://www.youtube.com/@AlierwaiDataStudio)  
🌐 [linkedin.com/in/tongakuot/](https://www.linkedin.com/in/tongakuot/)

## SKILLS

💻 **Programming:** R, Python, SQL

🔧 **Tools:** RStudio, Quarto, Jupiter Notebook, JupyterLab, VS Code, R Shiny, PowerBI, Microsoft (Word, Excel, PowerPoint)

➤ **Framework:** R Shiny, Quarto

📦 **R & Python Packages:** Tidyverse, Quarto, Shiny, pagedown, papaja, RMarkdown, Plotly R, gt, geExtras, tidymodels, pandas, numpy, matplotlib, seaborn, scikit-learn, sympy, Polars, BeautifulSoup, PyTorch

🔗 **Version Control:** Github

💡 **Other:** Data science, statistics, mathematics, teaching, data visualization with R Shiny, time series, deep learning (DL)

Made with the R package  
[pagedown](#).

The source code is available at  
[github.com/tongakuot/ar\\_cv](https://github.com/tongakuot/ar_cv).

Last updated on 2023-11-03.



## TEACHING EXPERIENCE

2016  
|  
2011



### Lecturer

Middle Tennessee State University

📍 Murfreesboro, TN

- Taught general math courses including plane trigonometry, applied calculus I, applied statistics/introductory statistics, finite mathematics, college algebra, mathematics for general studies (Mathematical Ideas), and Pre-Calculus (Pathways to Calculus).
- Turned 'F' students into 'A' and 'B' students through active and participatory learning; used hands-on approaches to make students conceptualize mathematical concepts to be able to construct meaningful mathematical statements.
- Helped challenged students to change their negative thinking into positive-possibility thinking through friendly coaching and mentorship.

2011  
|  
2009



### Graduate Teaching Assistant

Middle Tennessee State University

📍 Murfreesboro, TN

- Taught Applied Statistics and tutored both math and statistics.



## RESEARCH EXPERIENCE

2007  
|  
2006



### Undergraduate Research

University of Texas at Dallas

📍 Richardson, TX

- Conducted LSAMP supported undergraduate research under Dr. Mohammed Abdelsalam at the University at Dallas and presented it at the University of Texas at El Paso.
- Traced the Aswa Shear Zone using the Advanced Spaceborne Thermal Reflection and Radiometer (ASTER) Data and presented the findings during the LSAMP competition at the University of Texas at El Paso in 2007.



## EDUCATION

2017  
|  
2016



### MBA., Information Systems Management

LeTourneau University

📍 Longview, TX

2011  
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2009



### M.S., Professional Science - Biostatistics

Middle Tennessee State University

📍 Murfreesboro, TN

2008  
|  
2005



### B.S., Neuroscience

University of Texas at Dallas

📍 Richardson, TX

2005  
|  
2003



### General Studies (Mathematics/PreMed/PrePharmacy)

Richland College (DCCCD)

📍 Dallas, TX

## AWARDS & HONORS

### LifePoint Health

Mercy Award (2020)

### The University of Texas at Dallas

Louis Stokes Alliance for  
Minority Participation (LSAMP)  
Scholarship (2006 - 2007)

### Richland College (DCCCD)

Vice President's List (2005)



## LEADERSHIP AND COMMUNITY ENGAGEMENT

Present  
|  
2020



### President

Jonglei Institute of Technology

📍 Murfreesboro, TN

- Run the day-to-day activities of the organization.
- Plan and implement programs to advance the company's mission & vision.
- Write and maintain the company's legal documents, build and maintain the website.
- Provide free tutoring and mentorship to individuals from South Sudan and Kenya.
- Publish YouTube tutorial videos on Alierwai DataStudio and Jonglei Institute of Technology.

I am passionate about data science and statistics education with R and Python. I understand that numerous people worldwide, especially in my home country of South Sudan, want to learn but have limited resources.



## POSTERS AND PRESENTATIONS

2007



### Tracing the Aswa Shear Zone using the Advanced Spaceborne Thermal Reflection and Radiometer (ASTER) Data

Poster & Oral Presentation, Undergraduate Research in Geology

📍 University of Texas at El Paso

- Traced the Aswa Shear Zone using the Advanced Spaceborne Thermal Reflection and Radiometer (ASTER) Data and presented the findings during the LSAMP competition at the University of Texas at El Paso in 2007.