

ALIER RENG

Data science professional, statistician, and educator with over seven years of university teaching experience and about 5-year experience in healthcare analytics. Passionate about delivering quality data-driven results with efficiency and high accuracy. My research interest areas include data visualization with R Shiny and Natural Language Processing (NLP).



INDUSTRY EXPERIENCE

present
|
2021



Senior Data Analyst

LifePoint Health

📍 Brentwood, TN

- Data Stewardship: perform monthly data validation to ensure data accuracy before being pushed to PowerBI for hospitals' use.
- Perform manual extraction of NHSN, CHOIS Mortality, and Truven data; clean and push the final reports to PowerBI.
- Perform exploratory and predictive analysis with Python and R.
- Support and assist hospitals and the HSC departments with their data needs.
- Create and modify divisions and hospitals' NHSN Goals, MOR, and QOC reports and dashboards using R, Python, and PowerBI.

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.



Clinical Analytics Intern

Vanguard Health Systems

📍 Nashville, TN

- Used SPSS to analyze and perform correlation and predictive analysis on Hand Hygiene, CLABSI, and VAP to find potential best predictors of patient fall.
- Created PowerPoint presentations for Quality Council Review.
- Created Excel files for MIDAS+ Dictionaries and State Reporting on Healthcare Quality Measures required by each state.



TEACHING EXPERIENCE

Present
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2020



Lead Instructor, Data Science Program

Jonglei Institute of Technology

📍 Murfreesboro, TN

- Teach data science, elementary statistics, and introductory personal financial management courses with Python and R.

CONTACT

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🌐 jongleiinstitute.com
🐙 github.com/alierwai
🐦 twitter.com/tongakuot
in linkedin.com/in/tongakuot/

SKILLS

💻 **Programming:** R, Python, PySpark, SQL, HTML, CSS

🛠️ **Tools:** R Shiny, PowerBI, Cognos, MIDAS+, RStudio, Jupiter Notebook, Microsoft (Word, Excel, PowerPoint), Spyder, PyCharm, Visual Studio Code

➤ **Framework:** R Shiny, Bootstrap, Django, WordPress

📦 **R & Python Packages:** Tidyverse, tidyquant, lubridate, clock, ggplot2, Shiny, ggrepel, pagedown, xaringan, stationery, papaja, RMarkdown, gt, knitr, tidymodels, tinytex, pandas, numpy, matplotlib, seaborn, scikit-learn, scipy, sympy, BeautifulSoup, bokeh, skimr, Spacy, NLTK

🔗 **Version Control:** Github

💡 **Other:** Data science, mathematics, statistics, teaching, data visualization with R Shiny, quantitative finance, machine learning, Natural Language Processing (NL)

*Made with the R package **pagedown**.*

The source code is available at github.com/alierwai/ar_cv.

See the full version of this CV with links at jongleiinstitute.com/cv.

Last updated on 2021-07-18.

2016
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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
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2009



Graduate Teaching Assistant

Middle Tennessee State University

📍 Murfreesboro, TN

- Taught Applied Statistics and tutored both math and statistics.

2001



Classroom Teacher

Jebel Mara Primary School

📍 Kakuma Refugee Camp, Kenya

- Taught 8th-grade English and 7th-grade G.H.C (Government, History & Civic)



RESEARCH EXPERIENCE

2007
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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.

2007
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2006



Undergraduate Research

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EDUCATION

2017
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2016



MBA., Information Systems Management

LeTourneau University

📍 Longview, TX

ONLINE COURSES

Business Science: [DS4B 202A-R: Shiny Developer with AWS](#); [DS4B 101-R: Business Analysis With R](#); [DS4B 201-R: Data Science For Business With R](#)

Datacamp: [Machine Learning Scientist with R](#); [Data Scientist with R](#); [Data Scientist with Python](#); [Winning a Kaggle Competition in Python](#)




Udemy: [PySpark Essentials for Data Scientists \(Big Data + Python\)](#); [Web Scraping and API Fundamentals in Python 2021](#); [Interactive Python Dashboards with Plotly and Dash](#); [Master in Microsoft Power BI Desktop and Service NLP - Natural Language Processing with Python](#)

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)

- 2011
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2009 • **M.S., Professional Science – Biostatistics**
Middle Tennessee State University  Murfreesboro, TN
- 2008
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2005 • **B.S., Neuroscience**
University of Texas at Dallas  Richardson, TX
- 2005
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2003 • **General Studies (Mathematics/PreMed/PrePharmacy)**
Richland College (DCCCD)  Dallas, TX




LEADERSHIP AND COMMUNITY ENGAGEMENT

- Present
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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.



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.