# RACHEL LANDERS

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#### Experience

USAA

San Antonio, TX

Software Engineer I, P&C IT Scout and Discovery

March 2020 - present

- Conducted statistical analysis comparing indemnity paid of claims between members with water sensor device and those without
- Leveraging natural language processing to determine suitability of water sensor device recommendations for members based on claim/member/housing characteristics
- Built proof of concept business process management workflow for use by IT architecture team in modernization architecture decisioning
- Organize and plan P&C Hackathons
- Collaborated with cross-team focus group on future behavior-based property offering
- Contributing to development of data selection tool

**USAA** 

San Antonio, TX

Software Developer & Integrator I, Data Insights & Automation

May 2019 - March 2020

- Analyzed Netezza system metadata to create ad-hoc visualizations which assisted in the diagnosis of enterprise-wide long-running Netezza queries
- Wrote Hive queries and built Hive views to support the implementation & maintenance of Tableau visualizations of system/application health data for business and IT audiences
- Built visualization of Pantheon tool usage by persona to allow architects, product managers, and product owners to assess Pantheon marketing effectiveness and planning
- Built health scorecard providing business users with key performance metrics indicating overall current and historical health of various Pantheon applications such as BO, SAS, and Tableau
- Built dashboard of SAS file usage for system administrators to evaluate use of SAS server storage
- Manually validated data moved from source to long-term storage layer of monitoring platform was accurate and formatted consistently
- Wrote Python script to validate data persisted within HDFS is consistent with source data
- Continuously learned and promoted visualization and coding best practices in team design/code reviews
- Lead effort to engineer Nifi data pipeline moving data from source and persisting in HDFS
- Wrote Python script to monitor HTTP response times using Docker/Kubernetes to support business SLAs
- Enforced and followed data development lifecycle compliance standards
- Team representative for PULSE and PHUN committe

Software Developer & Integrator II, Data Insights & Automation

July 2017 - May 2019

- Automated ODBC connections in R using ServiceNow workflows
- Built ServiceNow CI/CD GitLab pipeline
- Developed REST API for ServiceNow application

## Southwest Research Institute

San Antonio, TX May 2015 - July 2017

Research Analyst, Space Data Systems

- Built data processing pipelines and web applications for science operations and science data analysis for NASA missions including: Juno, Cassini
- Designed, implemented, maintained, & analyzed Juno spacecraft downlink data volume algorithm model spreadsheets which were used to ensure data was downlinked most optimally and efficiently and that data was not lost due to the data volume restrictions of the deep space network. Instrument power allocation was similarly analyzed.
- Investigated inconsistencies between manually calculated data and web application generated data
- Created data visualizations in JFreeChart and Microsoft Excel for science data analysis and science operation planning

- Collaborated with scientists & team members on web application requirements and design
- Wrote and updated software documentation
- Demonstrated beneficial coding practices, programming in Java 8, and new technologies at monthly training meetings
- Enhanced user experience with modern user interface libraries
- Interpreted science data to design relational databases
- Wrote unit tests using JUnit
- Updated section management Excel spreadsheets tracking server, staff planning, & staff skills statistics
- Section representative for Division Management Advisory Committee Chair

### Texas A&M University-Commerce

Commerce, TX

Graduate Teaching Assistant

August 2013 - May 2015

- Instructed calculus I labs & supplementally train students on programming in Wolfram Mathematica
- Constructed visual aids in Wolfram Mathematica to demonstrate complex calculus concepts
- Wrote calculus I/III solution keys & programming guides in Wolfram Mathematica
- Maintained records of 200+ students' grades, attendance, & behavior using Microsoft Excel
- Coordinated development of lesson plans & classroom management techniques with fellow instructors

# SKILLS

Languages: Python, R, SAS, MatLab, SQL, Java, Wolfram Mathematica, IDL,

JavaScript, CSS, HTML, JSON, XML, LaTeX

Data Visualization Tools: Tableau, Plotly, ggplot2, JFreeChart, Microsoft Excel Data Storage Technologies: Hive, HDFS, Oracle, MySQL, Netezza, Snowflake

Software: Nifi, Control-M, GitLab, Eclipse, Sublime

## EDUCATION

#### University of Texas at San Antonio

Master of Science Data Analytics

San Antonio, TX August 2019 - May 2021

August 2019 - May 2021

Texas A&M University-Commerce

Master of Science Mathematics

Commerce, Texas August 2013 - May 2015

Texas A&M University-Commerce

Bachelor of Arts Mathematics, Spanish Cum Laude

Commerce, TX

August 2008 - December 2012

#### Research

- Co-author: Bayless AJ, Fryer CL, et al. The SuperNovae Analysis APplication (SNAP):
   A new analysis tool for understanding the physics of supernovae. American
   Astronomical Society. 2017; 846:101
- Author: A new combinatorial interpretation of multinomial coefficients. Master's thesis, TAMU-Commerce, 2015
- Poster presentation: A new combinatorial interpretation of multinomial coefficients.

  Texas A&M University Annual Pathways Student Research Symposium. 2013. Kingsville, TX.
- Author: Predictors of success in the admissions standards of Texas A&M University-Commerce Honors College. Honors thesis, TAMU-Commerce, 2012

# ORGANIZATIONS

• Texas A&M University-Commerce Mathematics Advisory Council 2018-2021

# CERTIFICATIONS

ullet Tableau Desktop Specialist