Ziqi Zhang

ziqia58@gmail.com | 832.298.0107

www.linkedin.com/in/grace-ziqi-zhang | https://github.com/graceziqi?tab=repositories

EDUCATION

University of Virginia, School of Data Science, Charlottesville, VA   *June 2023 – Expected May 2024*
*Master of Science in **Data Science** |* GPA: 3.957/4.0
Relevant Courses: Ethics of Big Data, Statistical Learning, Bayesian Machine Learning, Deep Learning, Risk Analysis, Big Data System, Foundations Computer Science, Programming and Application of Data Science, Linear Models

University of Texas at Austin, College of Natural Science, Austin, TX   *August 2019 – May 2023*
*Major: Bachelor of Science and Arts, **Chemistry** |* GPA: 3.873/4.0
Certificate in ***Scientific Computation and Data Sciences***
University Honors *(May 2023)* | Nominated for 4 selective scholarships *(2019-2023)* | Award for Academic Excellence *(Jan. 2020)*
Relevant Courses*:* Scientific Programming, Elements of Statistics, Matrix Calculations, Differential Calculus, Integral Calculus, Multivariable Calculus, Computational Materials Research Programming

RELEVANT PROJECTS

Investigation of Sleep Disorder with Bayesian Approach
Team Member, School of Dasta Science, UVA   *November 2023 – December 2023*
- Employed 3 approaches in Bayesian logistic regression to assess the predictive accuracy and classification capability of sleep disorder diagnoses in **Python**; compared the trade-offs of different models using AUC, WAIC, and LOO
- Estimated the odds of experiencing sleep disorder given the identified significant factors such as stress level

House Sale Predictions with Linear & Logistic Regression Models
Team Member, School of Data Science, UVA   *June 2023 – July 2023*
- Improved predictive accountability of linear regression model with 4 features on price of house sale to **58%** with **R**
- Designed the most accurate logistic regression model with a high Auc-Roc of **0.95** in the competition; evaluated impact of significant components on housing quality by decreasing false positive rate to **0.27**

Exploration of Monkeys' Circadian Rhythm at Snodderly Lab
Leader/Researcher, Department of Neuroscience, UT Austin   *March 2022 – May 2023*
- Cleansed and transformed **~70k+** messy data records regarding monkeys' activity pulses, imputed missing values and treated outliers; produced impactful visualizations and discovered circadian rhythm relating to time with **R** and **Python**
- Applied smoothing technique with normal kernel to produce impactful visualizations of 2 monkey species' moving patterns and discovered their circadian rhythm differences
- Collaborated with 6 researchers and provided insights on relationships between annual regional temperature and monkeys' activity patterns; built a logistic regression model with **elastic net penalty** and **10-fold CV** over the luminosity and monkeys' activities

Computational Materials Research
Undergrad Researcher, Freshman Research Initiative, UT Austin   *August 2019 – May 2020*
- Constructed most efficient core-shell bimetallic nanoparticle models with different given transition metals in **Python**
- Improved **80%** of alloys' catalytic activities and stabilities by adjusting binding energy with oxygen and hydrogen; found the most potential catalyst materials in fuel cells and Li-Air batteries

SKILLS

- Programming languages/Software: R, Python, SQL, Tableau, Excel
- Technical Concentration: Data wrangling & cleansing, Machine learning, Data analysis, Statistical modeling, Bayesian statistics, Metadata, Database, JSON files, NLP, Dashboard, Time series, Linux, HTML
- Languages speaking: Mandarin, English

WORK EXPERIENCE

***Student Ambassador, School of Data Science*, UVA**   *July 2023 – Current*
- Holding webinars and recruiting events, facilitating group conversations among students, and performing ongoing administrative duties such as assisting applicants along with the application process

***Chemistry Office Student Assistant, Department of Chemistry*, UT Austin**   *June 2022 – May 2023*
- Arranged and organized administrative tasks and activities, multiple departments' events, and online orientation related to office support, material organization and other orientation operations for the College of Natural Science
- Coordinated the mailing delivery process and performed tasks related to labs support

***Undergraduate Teaching Assistant, Department of Chemistry*, UT Austin**   *January 2022 – May 2023*
- Held office hours and led discussions for +70 students, assisted professors on writing exam questions and grading homework, quizzes, and exams