

LEI KANG

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SUMMARY

Data Analyst with Certificate in Data Analytics Boot Camp from Rice University. Proven ability in performing data analysis and visualization using Python, JavaScript, machine learning, and more to generate reports that offers valuable business insights. Rapid adaptation towards different company cultures validated by the experiences as a former scientific researcher with strong communication and team-work skills showcased by more than 10 co-authored SCI publications.

TECHNICAL SKILLS

Languages & Libraries: Python, Pandas, NumPy, SciPy, Matplotlib, Flask, Beautiful Soup, Splinter, Selenium, scikit learn, Keras, PySpark, R, Excel and VBA

Web & Visualization: HTML/CSS, Bootstrap, JavaScript, D3.js, Plotly.js, Leaflet, Heroku, Tableau

Databases: SQL, MongoDB

PROJECTS

Odds Are Odd | <https://github.com/koudash/Odds-Are-Odd/> | <https://oddsodd.herokuapp.com/>

- Historical odds movements data of season 2018/2019 for 5 European leagues and MLS from a total of 4 betting companies were scraped and analyzed. Four types of machine learning models were built up accordingly with optimized ones selected to predict soccer match results.
- 100% oversaw every aspect of the project, from data scraping and cleaning to model training, from coding to visualization of predictions, etc.
- **Tools used:** Python | Pandas | Selenium | Tableau Public | Sklearn and Keras machine learning models | HTML & CSS | JavaScript | Flask | Heroku

RT-qPCR_Plot | https://github.com/koudash/RT-qPCR_Plot/ | <https://koudash-qpcr-plot.herokuapp.com/>

- In medical and biological studies, gene activation in both treatment and control groups was determined by real-time quantitative polymerase chain reaction (RT-qPCR). Web application was created to read in such results saved in ".csv" format and analyze them using $2^{-\Delta\Delta Ct}$ method. Two output options were available, being downloading the processed data and generating bar plot tailored by user's specific demands.
- 100% oversaw every aspect of the project, from web application to flask coding for data analysis.
- **Tools used:** Python | Pandas | HTML & CSS | JavaScript | Flask | Heroku

Welcome to the Apocalypse | <https://github.com/koudash/Welcome-to-the-Apocalypse>

<https://apocalypse-database.herokuapp.com/>

- Natural disasters specifically in the forms of earthquakes, volcanoes, and tsunamis from 1900 till now were examined and illustrated on the map with trends analyzed along time.
- Scraped data for one out of four charts and wrote all HTML and most of JavaScript codes
- **Tools used:** Python | Pandas | Splinter | SQLAlchemy | Flask | HTML & CSS | Javascript | Heroku

Endangered Animals | <https://github.com/koudash/Endangered-Animals/>

- Facts about 69 endangered animals, articles with their names in New York Times, as well as the historical temperature of their habitat countries were scraped to be stored in MongoDB. A HTML webpage was set up for data inquiry through communicating with Flask.
- Scraped animal facts data, set up MongoDB and Flask server, created HTML interface, and built connections among HTML, Flask server, and MongoDB
- **Tools used:** Python | Pandas | Splinter | Selenium | pymongo | Flask | HTML & CSS

EXPERIENCE

Sr Research Assist

MD Anderson Cancer Center

May 2018 – Apr 2019

Houston, TX

- Worked in a core laboratory providing RNA sequencing service

Postdoctoral Researcher

Baylor College of Medicine

Nov 2015 – May 2018

Houston, TX

- Studied molecular mechanisms of renal fibrosis both *in vitro* and using mouse models

Postdoctoral Researcher

University of Alabama at Birmingham

Oct 2014 – Oct 2015

Birmingham, AL

- Focused on identifying residual pluripotent stem cells by universal 3D3 antibody to human podocalyxin like protein after extended differentiation

Postdoctoral Researcher

Stanford University

Aug 2012 – Sep 2014

Palo Alto, CA

- Validated CD47 *in vivo* imaging for bladder cancer in orthotopic mouse model

EDUCATION

2019 Certificate from Data Analytics Boot Camp: Rice University

Houston, TX

A 24-week intensive program focused on gaining technical programming skills in Excel, VBA, Python, R, JavaScript, SQL Databases, Tableau, Big Data, and Machine Learning.

2011 Doctor of Philosophy in Microbiology from Wuhan University

Wuhan, China

2004 Bachelor of Science in Biological Sciences from Wuhan University

Wuhan, China

2004 Bachelor of Engineering in Applied Chemistry from Wuhan University

Wuhan, China