

Woo Sik (Lewis) Kim

lewis.k@berkeley.edu | 917-224-1319 | lounotlew.github.io | github.com/lounotlew

EDUCATION

University of California, Berkeley

B.A. in Applied Mathematics (concentration in Computer Science and Statistics)

Berkeley, CA

Expected Dec. 2018

EXPERIENCE

RJ's Liquor, Software Developer

Jun. 2018 – Aug. 2018

- Built a Flask-based private company website with a SQLAlchemy database for a medium-large liquor store to manage sales, payments, and inventory data, and streamline a cash flow of more than \$15,000 a day.
- Offered cloud solutions for the business's growing database by connecting parts of it to Google Cloud Storage to store older entries, keeping the database efficient and relevant.
- Provided various analytics tools using Chart.js, matplotlib, and linear regression forecasting (among others) to visualize necessary data, forecast sales of certain product types, and optimize inventory purchases based on sales trends.

PROJECTS

* The following are non-school projects (except Gitlet), and are all available on github.com/lounotlew.

Blizzard API Wrapper Library ("BlizzPy")

Python

- Developed an open-source API wrapper library for Python to fill the lack of comprehensive access to Blizzard's API.
- BlizzPy returns both raw API JSON data and clean, organized data pre-processed internally, and has various analytical functions to help develop insights into the data (e.g. analyzing a player's rankings and winrates compared to others).
- Published to PyPI. Continuing to add support for new features and working with contributors to further improve the library.

Twitter Sentiment Analyzer ("Sentweetment2")

Python, Django, Pandas

- Built a Twitter sentiment analysis web app using Django. Utilized the VADER Lexicon and Pandas to analyze and assign a polarity score to each of the user's tokenized tweets, and determine the overall sentiment of that account.
- Added optional detailed statistical analyses of the user's tweets, including visualizations through Highcharts.
- Available on: lounotlew.pythonanywhere.com.

Networks and Systems Builder ("Networkify")

Java, JavaFX

- Developed a Java tool that constructs directed/undirected graphs with edge costs for representing networks and systems, such as transportation networks, recommendation systems, or fastest delivery paths.
- Utilized JavaFX to create a GUI, with simple ways to connect two nodes and analyze the graph through various algorithms.

Interactive Yelp Data Downloader ("AYRABTS")

R, Shiny

- Created a R shiny web app that visualizes the data fetched from the Yelp API into easy-to-view dataframes, which updates in real-time as the users' desired parameters change. Users can then choose to write the data to .csv files and download it.
- Available on: <https://lounotlew.shinyapps.io/ayrabts/>.

Lossless File Compressor and Encrypter ("FileCase")

Python, Tkinter

- Implemented the Huffman Coding Algorithm and other compression methods to a desktop app that compresses text and docx files, reducing sizes by up to 67% without loss, with an option to encrypt those files instead using AES-256 CFB.

Mini Version Control System ("Gitlet")

Java

- Designed and built a miniature version-control system that mimics standard features of Git, such as commits, logs, and merges. Used SHA-1 hashing to reference commits, and utilized Java Serialization to read/write file content.

SKILLS

- **Proficient Languages/Frameworks:** Python | Java | R | SQL | Pandas | NumPy | Flask
- **Familiar/Pursuing Languages/Frameworks:** Django | HTML | CSS | JavaScript | TensorFlow
- **Other Technical Skills:** Web App Development | Data Cleaning/Analytics | Mathematical Computing | Project Design