Kris Sowattanangkul

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EDUCATION

University of California, Irvine   **Irvine, CA**
Bachelor of Science in Computer Science   Expected June 2024
- GPA: 3.9
- Relevant Coursework: Computational Linear Algebra, Boolean Algebra & Discrete Math, Object Oriented Programming, Data Structures & Algorithms, Data Management

SKILLS

Programming Languages: Python, JavaScript, Java, C++, HTML, CSS, SQL, MATLAB, Bash
Libraries: pandas, Beautiful Soup, Matplotlib, scikit-learn, NumPy, SciPy, SQLite3, Leaflet, Seaborn
Frameworks and Technologies: React, AWS, RESTful API, Git, GitHub, Visual Studio Code, PyCharm, IntelliJ,

EXPERIENCE

Data Engineer, Intern   **July 2022 - August 2022**
Arlite Technology   *Los Angeles, CA*
- Developed and improved data visualization software that allowed users to upload CSV files, graphically represent the data using Matplotlib, and extrapolate data with scikit-learn
- Implemented linear and logistic regression algorithms with Sigmoid activation function to predict data
- Improved average prediction accuracy by 12% using dropout to counteract overfitting
- Developed software that found 100+ emergency service locations and supplies and visualized them on a heatmap using Seaborn and Leaflet
- Utilized Beautiful Soup library to access and parse through 30+ online/embedded text databases

PROJECTS

Mitski Lyrics Twitter Bot | *Python, JavaScript, AWS (Glue), RESTful APIs*
- Developed a Twitter bot that analyzes hourly lyrics tweets and replies with the name of the song
- Utilized Twitter API to access tweet and account data and the Genius API for lyrics queries
- Amassed ~3 followers per day with 50-100 impressions per song tweet
- Implemented cron expressions (Unix utility) through AWS Glue to initially automate tweets
- Cut automation costs by 100% and automation speed by 80% by running script hourly on Raspberry Pi

Alphanumeric Recognition Convolutional Neural Network | *Python (Pandas, NumPy, Matplotlib)*
- Developed a convolutional neural network to recognize alphanumeric images with ~93% accuracy
- Connected node layers and calculated weights and biases with linear algebra (no TensorFlow/Keras)
- Utilized pandas to parse and transpose Kaggle datasets containing ~370,000 28x28 pixelated images
- Implemented linear regression algorithms using ReLU activation function with 3 connected node layers

Thai Spot Cultural Website | *JavaScript, HTML, CSS, Python, RESTful APIs*
- Designed a website that allows users to search for Thai restaurants and places (Thai community's Yelp)
- Utilized Fetch API to asynchronously access Nominatim API and forward geocode location queries
- Integrated Google Maps API and Leaflet to display ~10,000 Thai locations with informational markers
- Wrote a Beautiful Soup Python script to search and index ~5,000 restaurants from 5+ online directories