Victor B. Lai

laivictor2718@gmail.com
(737) 704-5901• 12332 Edenvale Path • Austin, Texas, 78732

EDUCATION

The University of Texas at Austin — Cockrell School of Engineering—Electrical Engineering — May 2022
Overall GPA: 3.54/4.00 Major GPA: 3.64/4.00

Technical Core — Data Science and Information Processing

COMPUTER SKILLS

Proficient in — Python, Java

Familiar with — C/C++, FXML, MatLab, Labview, Multisim, HTML, Javascript, CSS, Verilog, Classification/Regression, Ensembling, Neural Networks/Deep Learning, Parallel Processing

PROJECTS

Data Science Lab(2021) — In Python, worked on a variety of data science problems, including data visualization, classifiers such as decision trees or random forests, several logistic and linear regressors, boosting and tuning parameters with XGBoost, and ensembling methods such as stacking, and bagging. Did convolutional neural networking and deep learning with PyTorch, FastAi, and ResNet, both with and without pretrained models. Other used libraries include Pandas, Seaborn, SciPy, SkLearn, and more.

Concurrent and Distributed Systems(2021) — In Java, worked on projects that involved processing data in parallel and multithreading, with techniques such as semaphores, locks, synchronization, atomic variables, and several mutex algorithms. Also worked with client server programming with both TCP and UDP sockets. Worked with MapReduce in Hadoop to make a text analyzer for entire books that runs within minutes.

App Scrape(2021) — Part of a larger project called PrivacyCheck by the UT Center of Identity, built a crawler to scrape Apple's new privacy cards, one hot encoded based on the presence or absence of elements, and exported the resulting dataframe to csv files. Also scraped privacy policy links and their corresponding text. Worked with BeautifulSoup to scrape and Pandas to format.

Data Science Principles(2020) — Used NumPy and Matplotlib(Python) to solve various data science problems such as doing linear regressions and measuring training vs testing errors. Worked with MNIST dataset to recognize handwritten digits using K Nearest Neighbors.

Olympics(2020) — Built a website that provides information about the Olympics, such as event records and notable athletes. Used data mining tools like Scrapy and BeautifulSoup to obtain information, and Flask to build template webpages. Mainly in HTML and Python.

BlogApp(2020) — Developed a space themed blog hosted online where users can view blog posts, sign in to create their own, search blogs based on title or content, use the fixed navigation bar at the top to switch between pages, and subscribe to a daily digest by email of new blog posts made. Hosted on Google Cloud Platform, with a mixture of Java, HTML, CSS, Cron, and more.

Chat (2019)	Coded a multithreaded chatting program made into a runnable JAR file exported from Eclipse(Java) that allows multiple clients and computers to communicate via InetAddress. Uses a GUI made with Scene Builder (FXML)
Space Invaders (2019)	Made a Space Invaders game programmed in Keil(C++) that works disconnected from the computer on a SI7735 display by Adafruit, with sound, a physical slider, and buttons
Robot Car (2018)	Programmed a sensor-based control system designed in Labview that responds based on light and distance to objects to successfully get a robot car through a physical maze