Yang Lu

(832)-363-7441 | ylu635@gatech.edu | github.com/lukeyanggb | linkedin.com/in/luke-yanglu

Education

Georgia Institute of Technology Jan 2021 – Dec 2022 (Expected)
M.S. in Computer Science, GPA: 4.0/4.0 *Atlanta, GA*

- Courses: Software Architecture and Design, Software Development Process, Computer Networks, Database System Concepts & Design, Data and Visual Analytics

The University of Alabama Aug 2014 – May 2019
Ph.D. in Chemical Engineering, GPA: 4.0/4.0 *Tuscaloosa, AL*

South China University of Technology Aug 2010 – May 2014
B.S. in Polymer Materials Engineering, GPA: 3.4/4.0 *Guangzhou, China*

Technical Skills

Languages: Python, Java, SQL, JavaScript, HTML/CSS, UNIX shell, R
Frameworks: Spring Boot, Spring Security, Node.js, Django, Flask, Bootstrap, Redis
Developer Tools: Git, Docker, Vim, Spark, AWS (S3, EC2, Lambda, API gateway)
Libraries: pandas, React.js, D3.js, Thymeleaf, NumPy, Matplotlib, Scikit-learn

Projects

Marijuana Analyzer | *JavaScript, Python, D3.js, Bootstrap, AWS, scikit-learn*

- Developed an intelligent web app with insights on effects of marijuana on mental health and drug abuse
- Trained predictive machine learning models on high-dimensional healthcare data (56,314*2,691)
- Deployed machine learning models (accuracy > 85%) on AWS (S3, Lambda, API Gateway)
- Produced dynamic, interactive data visualizations on web app using D3.js

Grocery Express System | *Java, Spring Boot, Spring Security, MySQL, Redis, Thymeleaf*

- Developed a grocery shopping system that provide support for online order placement and delivery
- Implemented a configurable GUI, persisted data on MySQL, built and tested RESTFul API on Postman
- Implemented system access authentication & authorization, password encryption via Spring Security
- Integrated with Redis to cache database queries with 80% faster response time

Furniture Sales Reporting System | *Python, PostgreSQL, Flask, HTML/CSS*

- Built a sales reporting system with a dashboard UI to support enterprise decision making
- Designed and created EER and normalized schema with no redundancy for DBMS implementation
- Created indices for efficient database operation on over 1 million sales records

Border Gateway Protocol (BGP) Hijacking Simulation | *Python, Mininet, UNIX shell*

- Created network topology, prefixes/paths, router configurations using python and Mininet
- Simulated different attack scenarios to demonstrate the effects of various prefix hijack attack instances

Experience

Research Scientist Jun 2020 – Present
Georgia Institute of Technology *Atlanta, GA*

- Created machine learning and signal processing models for wearable sensor development
- Designed, built, maintained a SQL database with utility tools to store group experimental data
- Analyzed experimental data for feature engineering, automated workflow on data analysis & visualization