LIANGYING HUANG

lyhuang126@gmail.com | https://github.com/DylanHuang126

EDUCATION

Rice University, Houston, TX   Aug. 2021 - Dec. 2022
Master of Computer Science   *GPA 3.93 / 4.0*
National Taiwan University (NTU), Taipei, Taiwan   Sep. 2016 - Jun. 2020
B.B.A in Information Management   *(CS-related) GPA 3.95 / 4.3*
Relevant coursework: Object-oriented programming and design, Intro to database system, Operating system, Data structures, and Algorithms, Database System Implementation, Intro to computer networks

WORK EXPERIENCE

Cloud Software Engineer Intern, TigerGraph, Redwood City, CA   May 2022 - Nov. 2022
Distributed gRPC secure communication between TigerGraph's core system and customer solutions on AWS
- Implemented mtls-encrypted streaming gRPC in Golang for the core to send requests to solutions.
- Instrumented the gRPC server and client with Prometheus OpenMetric and monitored with Datadog.
- Deployed the system on AWS ECS with DynamoDB, SNS, API/GW, SQS, and Lambda integration.
- Composed Github Action for CI / CD with automatic test, build and deploy pipelines.
- Created Infrastructure-as-code with AWS Cloud Development Kit.

Software Engineer Intern, CTBC Financial Holding, Taipei, Taiwan Jul. 2019 - Aug. 2019
Text analyses based features on Customer Service Representatives(CSRs) System (agile development)
- Designed keyword and trend monitoring modules to help 50 CSRs handling daily 1k+ customer problems.
- Performed preprocessing and Exploratory Data Analysis using Python on 10k+ raw phone call transcripts.
- Applied Time Series Analyses on temporal keywords to alert CSRs about potential issues.

Software Engineer, Kaohsiung Port Pilot Union, Kaohsiung, Taiwan Aug. 2018 - Feb. 2019
Industry-academia collaboration: web & mobile service system for job scheduling of pilots
- Self-taught Django, and Google Cloud Platform and implemented service backend with the two skills.
- Designed and implemented 10+ REST APIs to handle complicated business logic in port.
- Integrated scheduling algorithms, MySQL databases, and Angular frontend view with high scalability.

SELECTED PROJECTS

Database System Implementation | C++   Jan. 2022 - May 2022
DB with modules like LRU buffer, file sorting, SQL type checking, relational operators, query optimizer, etc.
- Implemented Two-Pass Multiway Merge Sort (TPMMS) using priority queue.
- Realized 3 relational operations, including selection, sort merge join, and hash-based aggregation.

QuickChat Chat App | Java, JUnit, JavaScript(JS), Heroku   Oct. 2021
- Managed a 7 people team with Github projects; Established milestones for team members to achieve.
- Utilized 5 design patterns and 2 network protocols to design and achieved 90% of the unit test coverage.
- Integrated React and Java with well-defined API endpoints and documentation.

PUBLICATIONS

[1] User-Centric Path Reasoning towards Explainable Recommendation. Chang-You Tai, **Liang-Ying Huang**, Chien-Kun Huang and Lun-Wei Ku. SIGIR 2021

SKILLS

Programming: Python, Golang, Java, C++, SQL / NoSQL, Shell script, JavaScript
Libraries/Tools: AWS, CDK, Git, Github Actions, gRPC, protocol buffer, Docker, GCP, Linux, Django