Justin He

408-966-5659 | justinhe@ucla.edu | linkedin.com/in/justinhe24 | github.com/justinHe123 | justinhe.me

EDUCATION

University of California, Los Angeles (UCLA)   Sep. 2020 – Jun. 2023
Bachelor of Science in Computer Science, GPA 4.0   *Los Angeles, CA*
- Selected Coursework: Operating Systems, Databases, Machine Learning, Natural Language Processing (Graduate), Artificial Intelligence, Computer Organization, Algorithms & Complexity, Probability, Linear Algebra
- Activities: Upsilon Pi Epsilon (UPE) - Corporate Chair, Creative Labs - Project Developer, Association for Computing Machinery (ACM)

EXPERIENCE

Software Engineer Intern   Jun. 2022 – Sep. 2022
Meta   *Menlo Park, CA*
- Under Instagram Demand & Efficiency Management, focused on optimizing Instagram's backend efficiency
- Developed internal tools for aggregating feature launch impacts and promoting connectivity between launches and regression tasks
- Created heuristic for correlating sustained computing performance and resource changes with launches
- Expanded data collection rules to strengthen data robustness and completeness for products affected by launches

Software Engineer Intern   Jun. 2021 – Sep. 2021
Fwaygo   *Los Angeles, CA*
- Developed microservices in Go for user/song data processing, report handling, and server-to-client messaging
- Utilized RabbitMQ to facilitate interservice pub/sub communication between Docker container clusters on GKE
- Created GraphQL APIs for user/song queries & mutations and integrated them into the React Native frontend

Software Developer   Apr. 2021 – Jun. 2021
NurLabs   *Los Angeles, CA*
- Collaborated with UCLA researchers to develop a script for batch extracting spectroscopy data from .WDF files to train a machine learning lung cancer detection model
- Improved data extraction time from 2 minutes per file to less than one second overall
- Created a server and API for receiving and storing client information using PostgreSQL, Node, and Express
- Practiced agile scrum methodology through daily stand-ups with founders from UCLA Anderson

PROJECTS

GNN Integration to Knowledge Graph for Nephrology QA System   Mar. 2022 – Jun. 2022
- Collaborated with three UCLA PhD & Master's students to train QA models for answering nephrology questions which combine BERT and GNNs integrated with knowledge graphs
- Automated cleaning of data from a nephrology corpus consisting of 563 textbook chapters and 814 research articles
- Applied entity linking with a UMLS knowledge base to the cleaned text data using scispaCy to generate a specialized knowledge graph and annotated QA dataset
- Tuned GreaseLM and QA-GNN models under various hyperparameter and knowledge graph configurations to achieve state-of-the-art test accuracy of 37.2% for questions with 5 answer choices

Roblox Reviews | *Python, React, TypeScript, Google Cloud Platform, MySQL*   Jun. 2020 – Present
- Developed a full-stack web app using React offering game review services for 3,000+ users
- Designed APIs for accounts, reviews, and full text game searching using Python, Cloud Functions, and MySQL
- Utilized Beautiful Soup to scrape Roblox pages for game metadata to store in a database
- Published an extension to Chrome store adding a rating interface to roblox.com with Roblox Reviews statistics

TECHNICAL SKILLS

Languages: C++, Python, Go, JavaScript, Java, C, SQL, PHP, Bash, Verilog
Libraries: React, Node, Express, GraphQL, PyTorch, NumPy
Technologies: Git, Docker, Makefile, Google Cloud, AWS, Firebase, MySQL, PostgreSQL