Jay Liao

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EDUCATION

UNIVERSITY OF TEXAS
MS in Computer Science
May 2022 | Austin, TX
GPA: 3.95 / 4.0

UNIVERSITY OF TEXAS
BS in Computer Science with High Honors
May 2020 | Austin, TX
Cum. GPA: 3.95 / 4.0
Major GPA: 4.0 / 4.0

LINKS

Github:// **liaojh1998**
LinkedIn:// **jiehaoliao**

SKILLS

Programming
Python • C/C++ • Java • SQL • Javascript (Node.js) • HTML/CSS
Technical
PyTorch • pandas • React.js • Node.js • MySQL • Docker • Git • Jupyter Notebook • tmux • vim • LaTeX

COURSEWORK

GRADUATE
CS 395T: Topics in NLP
LIN 393: Discourse Processing
CS 395T: Grounded NLP
CS 395T: Spoken Lang. Technologies
CS 391R: Robot Learning
EE 381V: Advanced Topics in CV
CS 395T: Deep Learning Seminar
CS 394N: Neural Networks
CS 388C: Combinatorics and Graph Theory

UNDERGRADUATE
CS 378: Natural Language Processing
CS 378: F1/10 Autonomous Driving
CS 342: Neural Networks
CS 364D: Advanced Data Mining
CS 373: Software Engineering
CS 378: Multicore Operating Systems
CS 439: Operating Systems
CS 378: Virtualization
CS 429: Computer Architecture
CS 331: Algorithms and Complexity
CS 378: Big Data Programming
CS 314: Data Structures

EXPERIENCE

UNIVERSITY OF TEXAS AT AUSTIN | Graduate TA
Aug 2020 - Dec 2020 | Austin, TX
- Led discussions, office hours, and graded for CS 331 Algorithms and Complexity with **Professor Fares Fraij**.

UNIVERSITY OF TEXAS AT AUSTIN | Undergraduate TA
Sep 2019 - May 2020 | Austin, TX
- Graded and proctored for CS 331 Algorithms and Complexity with **Professor Fares Fraij**.

FACEBOOK | Performance and Capacity Engineering Intern
May 2019 - Aug 2019 | Menlo Park, CA
- Implemented a pipeline that refreshed a general purpose profile for a profile-guided optimization, AutoFDO, using **Python**, which was found to reduce the CPU utilization of most binaries by $\sim$ 1% and the capital expenditure by $1-10 million.
- Implemented and shipped the UI and backend for the profiling of a memory allocator, jemalloc, using **React.js, Hack,** and **C++**, which assisted in identifying memory fragmentation with respect to time.

QUANTLAB FINANCIAL | Software Development Intern
June 2018 – Aug 2018 | Houston, TX
- Implemented an automated anomaly detection pipeline for high-frequency trades using **Python**, which found failures on production machines that were left undiscovered for 6 months.

PROJECTS

REPRESENTING KNOWLEDGE BY GENERATING SENTENCES WITH RELATIONAL CONTEXTS
LIN 393 Discourse Processing, CS 395 Topics in NLP | Paper Link
Worked with **Ryo Kamoi**, **Prof Eunsol Choi**, and **Prof Jessy Li** to create a Transformer question answering model trained on sentences with common sense information to answer common sense questions using **PyTorch**.

NEAR UNSUPERVISED TEXT-TO-SPEECH AND AUTOMATIC SPEECH RECOGNITION
CS 395T Speech Language Technologies | Paper Link
Worked with **Lucas Kabela**, and **Bill Yang**, and **Prof David Harwath** to create a Transformer model that trained on a majority of its own outputs to do both automatic speech recognition and text to speech conversion using **PyTorch**.

SYNTHETIC UNANSWERABLE QUESTIONS IN VQA
CS 395T Grounded NLP | Paper Link
Worked with **Ryo Kamoi** and **Prof Raymond Mooney** to create a model that can identify whether or not a question about an image can be answered using **PyTorch**.

VOTEWISELY | Full-Stack Engineer
CS 373 Software Engineering | Project Link
Engineered a web application in a team that provided citizens with unbiased information on recent controversial issues by using **React.js** for UI, **Express.js** and **MySQL** for the backend, and **Docker** on **GitLab** for continuous deployment.