Carrie Yuan

(540) 255-9188
yuancarrieyjy@gmail.com
www.linkedin.com/in/carrie-yuan-466243121
yuanjiay.github.io

CAREER OBJECTIVE

A motivated software engineer with experience in building robust and scalable software for machine learning model training, and collaborating with engineers and researchers to design and implement the latest studies into production. Seeking for opportunities to pivot into the research field of AI and robotics.

EDUCATION

University of Washington, Seattle, WA
September 2022-Present
Professional Master of Science in Computational Linguistics
GPA: 4.0/4.0

Carnegie Mellon University, Pittsburgh, PA
August 2018-May 2021
Bachelor of Science in Neuroscience and Computer Science
GPA: 3.5/4.0
University Honor

SKILLS

Programming Language: Python, Java, C/C++, TypeScript, MATLAB, Unix, SQL/NoSQL, R, HTML/CSS/Javascript
Machine Learning: PyTorch, Apache Spark, OpenCV, Tensorflow, Jax, Scikit-learn
Tools: AWS, GCP, Docker, Git
Robotics: ROS, Gym, MoveIt, Gazebo, Isaac-sim

WORK EXPERIENCE

Amazon, Seattle, WA

Software Development Engineer, Alexa Care　　　2021/07 - 2022/01
- Designed and implemented the metrics monitoring and privacy compliance system for Alexa Together, a subscription service that offers elder care and urgent response using Alexa devices.

Software Development Engineer II, Amazon AGI　　　2022/01 - Present
- Designed and delivered DataPrep CLI, a data preprocessing and augmentation toolkit for model building for AlexaLLM. Upgraded the previously highly manual data preprocessing procedure to a configurable API-based user-friendly CLI tool, reducing dataset preparation time by 80%.
- Designed and implemented the first annotation inconsistency checker tools for Alexa NLU utterance data, leveraging the SentenceBERT semantic encoder to detect data with inconsistent labels in training and test set.
- Designed and developed Data Quality Reporting Tool. Automated the labor-intensive training data inspection process by language engineers, saving 95% dev time.
- Launched iDPS2.0, a container based data processing platform for Alexa NLP modeling user cases by streamlining data processing jobs, saving 75% development time.
- Worked as a part of the on-call rotation, responded to customer-impacting issues 24/7 after investigating the root cause and diving deep into the code source, pushed the corresponding fix and reported to the Alexa NLU team.

RESEARCH EXPERIENCE

Washington Embodied Intelligence and Robotics Development Lab, Seattle, WA

Research Assistant　　　2023/07 - Present
- Designed a real-to-sim-to-real robot learning pipeline, leveraging the state-of-art reinforcement learning in "digital twin" simulation environments. Co-trained the supervised learning vision policy from the real world, with the simulation policy distilled from a crowdsourced dataset with 20+ scanned scenes and 50 trained policies. Evaluated the co-trained policy on unseen environments with visual distractors and showed its improvement in success rate compared to simulation policies only.
- Designed, implemented, and deployed goal-selecting algorithms for 6 DOF WidowX250s robot arm based on asynchronous human feedback for fine-tuning vision-based foundation models on robot manipulation tasks in a toy kitchen setting.