Chao-Hsiang (Sean) Chung

chaosean1996@gmail.com | www.linkedin.com/in/seanch/ | (608)-628-8183

WORK & RESEARCH EXPERIENCES

Google: YouTube Ads Audience One Infrastructure   **Mountain View, CA**
Software Engineer   *Mar. 2022 – Present*

Bloomberg: Future and Options Apps / PORT Reporting Interfaces   **New York, NY**
Software Engineer   *Mar. 2021 – Mar. 2022*
– Constructed futures contract tables in Python that collected information using Comdb2 (SQL-based) and Calcrt
– Devised and developed a Python listener subscribing to exchanges to aggregate market updates & secured the file delivery
– Maintained a backend pipeline for generating investment portfolio report on PORT enterprise

Amazon: Alexa AI Search   **Berlin, Germany**
Software Development Engineer Intern   *July. 2020 – Sep. 2020*
– Developed a locality-sensitive hashing information retrieval system on 400M+ data in milliseconds scale using CUDA
– Implemented a semantic-based natural language encoding model (BERT-based) to support information retrieval tasks

Amazon: AWS EC2 Core Platform (Reservation)   **Seattle, WA**
Software Development Engineer Intern   *May. 2019 – Aug. 2019*
– Developed a proxy service to route clients' requests to servers to enhance customer experience and simplify maintenance
– Designed a web user interface in React-Redux for consumers to make reservations of EC2 instances

IBM-Illinois Research Center: Cognitive ARtifacts for Machine Learning (CarML)   **Urbana, IL**
Advisor: Prof. Wen-mei Hwu   *Aug. 2017 – Dec. 2017*
– Benchmarked machine learning models between frameworks and implemented a converter to convert models
– Gathered 20+ converted models on CarML, a platform easily to be deployed & experimented ML/DL models

SKILLS

Programming Languages: Java, Python, C/C++, JavaScript, TypeScript, MATLAB, Bash, C#
ML Domains: Information Retrieval, Classification, Natural Language Processing, Object Detection
Tools/Databases/Frameworks: TensorFlow, AWS, MySQL, Comdb2, Git, React, Redux, Jira, Jenkins, Docker
Languages: Mandarin (Native), Taiwanese (Native), English (Proficient)

PROJECTS

Robust Out-of-Distribution Detection
– Improved out-of-distribution detection performance using self supervised loss (by rotation and SimCLR) and energy score
– Benchmarked the out-of-distribution detection models and outperformed them on CIFAR-10 dataset

Stock Prices Prediction
– Developed machine learning models to predict stock price based on news using natural language processing
– Simulated trading based on the predicted result and time series, and made profit of 45.8%
– Applied Long Short-Term Memory, Naive Bayes-SVM, and Convolutional Neural Network to analyze news

iTrust
– Built and maintained a medical website in Java and MySQL that could make an appointment, message doctors, etc.
– Utilized software engineering methods (XP, Unit/Integration/Selenium Tests, Version Controls, Code Review, etc.)

limeOS
– Designed and developed an operating system in C & x86 on Linux
– Implemented synchronization, system call, interrupt & exception, paging, memory allocation, signal, etc.

EDUCATION

University of Wisconsin - Madison   **Madison, WI**
M.S. in Computer Science   *Sep. 2018 – Dec. 2020*

National Chiao Tung University   **Hsinchu, Taiwan**
B.S. in Electrical and Computer Engineering   *Sep. 2014 – Jun. 2018*
– **KTH Royal Institute of Technology, Sweden**: Exchange Study in Computer Science   *Jan. 2018 - Jun. 2018*
– **University of Illinois, Urbana-Champaign**: Exchange Study in Computer Science   *Aug. 2017 - Dec. 2017*