Yiqi Yan

Software Engineer

saoyan.github.io SaoYan yiqi-yan

Work Experience

APPLE MEDIA PRODUCT | Sofware Engineer

May 2022 – Present | Vancouver, Canada

- Content management service for Apple TV contents, including movies, episodes, as well as sports live and Apple TV channels.

AWS KINESIS DATA STREAM (KDS) | Sofware Engineer

Aug. 2020 – April 2022 | Vancouver, Canada

- Migrated the proxy service from JDK8 to JDK11, tuning JVM garbage collectors. Ran load testing and benchmarked upon various hardware categories.
- Participated in the overall design of KDS's new backend storage layer, which is expected to reach prod in mid 2022.
- Designed and implemented the control plane of the new backend that manages KDS data storage resources.
- Led the launch and chaos testing in Gamma.

AMAZON PRIME VIDEO | Software Engineer Intern

July 2019 – Oct 2019 | Seattle, U.S.A

- Intern Project: Streaming Segment Parser (Webpage)
- Re-designed the ISO-BMFF video segment parser. The new design turns the previous synchronous parsing process into asynchronous, making it capable of handling streaming data.
- Implemented the new parser using TypeScript via event-based architecture and improved time-to-first-frame by around 20%.

Research Projects

MELANOMA RECOGNITION BASED ON VISUAL ATTENTION | Python, PyTorch

Sep. 2018 - Dec. 2018 | Burnaby, Canada

- Project Webpage
- Proposed an attention-based method for accurate melanoma recognition. The attention modules, which are learned together with other network parameters, estimate attention maps that highlight image regions that are relevant to lesion classification.

VEHICLE COUNTING IN SURVEILLANCE VIDEOS | C++, Python, OpenCV, Tensorflow

Jul. 2017 - Sept. 2017 | Edmonton, Canada

- Project Webpage
- Implemented both C++ and Python version of a baseline algorithm (which performs vehicle counting using double virtual lines).
- Improved background subtraction of the baseline method using deep learning.
  - Combined pre-trained CNN model with deconvolution and pooling/unpooling layers to perform background subtraction.
  - Implemented various models and compared their performance.

Skills

PROGRAMMING

Proficient:
Java • Python

Experienced:
Ruby • JavaScript • TypeScript

Familiar:
C/C++ • Go • SQL

LIBRARIES/FRAMEWORKS

Guice • Protobuf • Spring • Solr • OpenCV • PyTorch • Tensorflow

AWS

Kinesis • DynamoDB • S3 • CloudWatch CloudFormation • IAM • KMS

Education

SIMON FRASER UNIVERSITY

M.Sc. in Computer Science

2018 - 2020 | Burnaby, BC, Canada

Medical Image Analysis Lab

Cum. GPA: 3.84 / 4.33

NORTHWESTERN POLYTECHNICAL UNIVERSITY

B.Eng. in Communication Engineering

Sep. 2014 - July 2018 | Xi'an, Shaanxi, China

School of Electronics and Information

Cum. GPA: 88.75 / 100