John Wonjin Choi

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EDUCATION

B.S. in Computer Science (Intelligent Systems specialization) Graduated: December 2019
University of California, Irvine

SKILLS

Languages	Python, Scala, Java, Terraform, SQL, Bash, Flutter
Streaming	Kafka, Spark
Software/Etc.	Akka, Aurora, Docker, Git, GitFlow, Jenkins, K6, NoSQL, PagerDuty, PostgreSQL, Snowflake
AWS	Athena, API Gateway, CloudWatch, CodeBuild, DynamoDB, EC2, Elastic Beanstalk, EMR, Glue, IAM, Kinesis, Lambda, Neptune, RDS, Route 53, S3, SageMaker, Secrets Manager, SQS, VPC

EXPERIENCE

Software Engineer II – Cox Automotive (Kelley Blue Book) Oct. 2020 – Present

- Development, maintenance, and support of vehicle recommendation APIs and data streaming services across the Consumer Insights release train
- Performed optimizations to Lambda functions to meet SLAs and improve data streaming throughput
- Design and implementation of resiliency features across the teams' AWS resources and products

Software Engineer I – Cox Automotive (Kelley Blue Book) June 2018 – June 2019 | Sept. 2019 – Oct. 2020

- Developed a daily ingest process via AWS Lambda, EMR, and Spark jobs that bulk loads consumer insight mappings into a Neptune database to keep the teams' insights up to date
- Updated and refactored an AWS DynamoDB backfill Spark job while combining it with another streaming Spark job into one GitHub repository by consolidating common business logic and restructuring the Scala project in order to simplify future development
- Reduced AWS monthly expenses by implementing Cloud Custodian policies through a pipeline of AWS Lambdas, AWS SQS, and Slack webhooks to monitor, alert, and clean up new/existing AWS infrastructure that violated custom policies which consolidated management of AWS accounts
- Consolidated load testing efforts for the release trains' APIs by pipelining the K6 load testing tool via Javascript and Jenkins leading to greater CI/CD efficiency

Software Engineer Intern – Western Digital June 2019 – Sept. 2019

- Developed a proof of concept for tiering data on a hybrid ActiveScale storage system via isolation forest anomaly detection with extensive Python and Bash scripting to pull and aggregate S3 access logs leading to greater hybrid storage efficiency
- Streamlined the physical replacement process of NVMe drives within ActiveScale systems by developing a Python script to debug symptomatic systems which aided engineers in ActiveScale management and reliability
- Proved the test time reduction of HDDs' manufacturing test cycles to be attainable by developing a supervised model which saved several hours of reliability testing for engineers

PROJECTS

LIDAR Proximity Sensor – Personal Arduino Project Aug. 2019

- Implemented a full 360° proximity sensor with an Arduino Uno and an RPLIDAR A1M8 sensor
- Detects any object within 12 meters of the LIDAR sensor which triggers a passive buzzer and a dynamically changing RGB LED changing with the nearest object's distance

Teapot 3D Modeling – Python Computer Vision Course Project (UCI Specialization) May 2019

- Completed a 3D rendering of a teapot via point triangulation, mesh generation, and MeshLab modeling software
- Utilized 10-bit gray code patterns to decode and reconstruct images of the teapot
- Scripted camera calibration, point cloud triangulation, mesh generation, and mesh smoothing via Python

Blackjack Counter – 2018 LAHacks Python Project Mar. 2018

- Built a live, streaming analysis of a Blackjack game using the OpenCV image/video analysis library in Python and PyQt4 GUI
- Implemented the concept of hi-low card counting in Blackjack using the image data captured from a phone livestream