John Wonjin Choi

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EDUCATION

B.S. in Computer Science (Intelligent Systems specialization) — Graduated: December 2019
University of California, Irvine — GPA: 3.506

SKILLS

Languages Python, Scala, Terraform, Bash, Java, C++, Javascript
Software Git, Jenkins, Apache Spark, Kafka, Docker, Snowflake, K6, JMeter
Monitoring AWS CloudWatch, PagerDuty
AWS Elastic Beanstalk, Lambda, S3, DynamoDB, EC2, EMR, Route 53, API Gateway, Kinesis, Athena, Neptune

EXPERIENCE

Software Engineer I – Cox Automotive (Kelley Blue Book) June 2018 – June 2019 & Sept. 2019 - Present

- Updated AWS DynamoDB backfill Spark job while combining it with another streaming Spark job into one common 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
- Improved the trackability of a vehicle recommendation engine's RESTful API by implementing UUIDs into the service in Scala which simplified consumers' individual recommendation analytics
- Developed custom AWS CloudWatch metrics via an AWS Lambda triggered by a Kinesis data audit stream which expedited SLA monitoring of multiple dealership insight nGauge products

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

Stock Market Analysis Tool – Personal Python Project Feb. 2020

- Developed a stock market analyzer via Python and IEX Cloud's financial API to model buy, hold, & sell indicators
- Analysis tool takes in any number of user-specified stock tickers, retrieves current and historical market data from IEX Cloud, and runs a simple model based on numerous financial data points

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

Steve.AI – Python ML Course Project (UCI Specialization) May 2019

- Developed a fighting agent within the videogame Minecraft via a sequential, deep Q-learning neural network
- Implemented through PyTorch/Keras and Python's Malmo interface

Main Menu – 2018 HackUCI Python + React Project Feb. 2018

- Analyzed Yelp reviews to generate curated restaurant menus using NLP and multiple Python Bottle servers