John Wonjin Choi

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EDUCATION

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

SKILLS

Languages Python, Scala, Terraform, Bash, Java, C++, Javascript
Software AWS, Git, Jenkins, Spark, Kafka, Docker, K6, JMeter, Swagger, PagerDuty
Courses Data Structures, ML/Data Mining, Computer Vision/Graphics, Networking, Databases, System Design

EXPERIENCE

Software Engineer I – Cox Automotive June 2018 – Present

- Improved the transparency of a vehicle recommendation engine's RESTful API by implementing UUIDs into the service 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
- 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 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 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
- Pipelined the model training cycle for the team by implementing an interface to easily configure the sequential Keras model's internal variables

Emotional Confidence Detector – 2018 Cox Automotive Hackathon Python Project Sep. 2018

- Utilized AWS Rekognition services to analyze test drivers' emotions to aid dealerships in sales negotiations
- Developed the RESTful Python API and data access object via Python's Bottle library which expedited the team's effort in retrieving responses from AWS resources

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

- Analyzed Yelp reviews to generate curated restaurant menus using NLP and multiple connected Python servers
- Developed a RESTful Python API using Bottle to communicate between the React app and the ML model server which guaranteed smooth connectivity between all applications