TJ Yang

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Skills

Programming Languages	Python, Rust, C, C++, Java, Javascript, HTML, CSS
Other Tools	Git, Docker, Kafka, Splunk, Kubernetes, PostgreSQL, Linux, ROS

Experience

Splunk Inc. *Toronto, CA*
SOFTWARE ENGINEERING INTERN - ENTERPRISE SECURITY *Sept. - Dec. 2020*

- Researched and prototyped self-correcting user security risk scoring rules with **MLTK** in **Python** to provide tailored risk detection
- Upgraded the security risk alerting platform to automatically update with new content

Cruise LLC *San Francisco, CA*
SOFTWARE ENGINEERING INTERN - PLANNING INTERACTIONS *Jan. - Apr. 2020*

- Created automated graph dashboards for test drive analytics using **Python** and **Dash**
- Rewrote internal **ROS** data pipeline to strip unneeded debug and execution data, leading to a 40% reduction of disk and ram usage during automated driving
- Rearchitected **C++** test suite to increase modularity and cohesion
- Developed functionality to spoof dynamic object trajectory and maneuver data for more realistic test scenarios

Splunk Inc. *San Jose, CA*
SOFTWARE ENGINEERING INTERN - ENTERPRISE SECURITY *May. - Aug. 2019*

- Engineered a prediction engine to recommend analyst actions for security events using **Machine Learning** models and **MLTK** in **Python**
- Implemented a front-end interface for easy selection and execution of recommended actions in **Javascript**
- Added searching functionality to perform automated lookup and enrichment of user asset data

SSIMWAVE Inc. *Waterloo, ON*
C/C++ SOFTWARE ENGINEERING *Sept. - Dec. 2018*

- Developed a CEA708 closed caption decoder for data format validation in **C++**
- Upgraded the video analytics pipeline to incorporate and monitor video quality metrics with increased precision
- Built telecine video filters to decode interlaced video using **FFmpeg** video processing libraries

eSentire Inc. *Cambridge, ON*
SOFTWARE DEVELOPER *Jan. - Apr. 2018*

- Developed and updated filters in **Ruby** for **Logstash** to parse audit logs from multiple sources including Dropbox, AWS, and Office 365

University of Waterloo Autonomoose *Waterloo, ON*
SIMULATION SOFTWARE ENGINEER *May - Aug. 2017*

- Programmed **ROS Nodelets** in **C++** for data transfer and virtual test monitoring

Education

University of Waterloo *Waterloo, Ontario*
CANDIDATE FOR BACHELOR OF SOFTWARE ENGINEERING *2016 - 2021*

- Dean's Honor List