MICHIGAN STATE UNIVERSITY **Alpha Presentation Profiling Manufacturing Plant Computer Network Traffic** The Capstone Experience Team GM Ignacio Brarda Logan Cummings

Logan Cummings Ben Frisanco Joseph Guzman Bella Oh

Department of Computer Science and Engineering Michigan State University Fall 2019

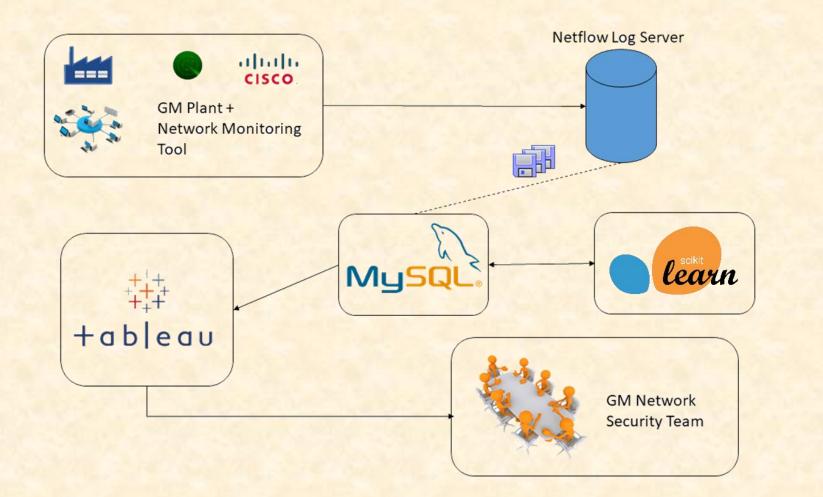


From Students... ...to Professionals

Project Overview

- Manufacturing Plant Network Traffic Increased
- Machine Learning To Detect Anomalies
- Displayed In An Easy To Understand Dashboard

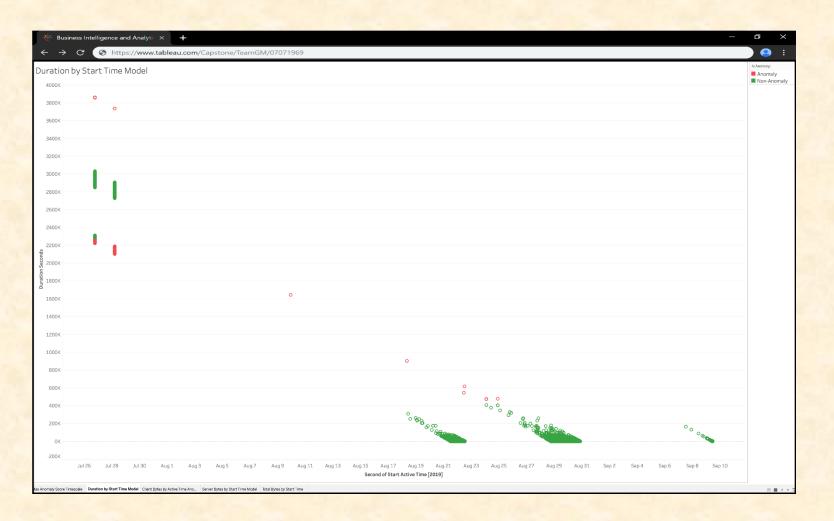
System Architecture



Anomaly Score Aggregate

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Duration Model



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Client Byte Model

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Server Byte Model

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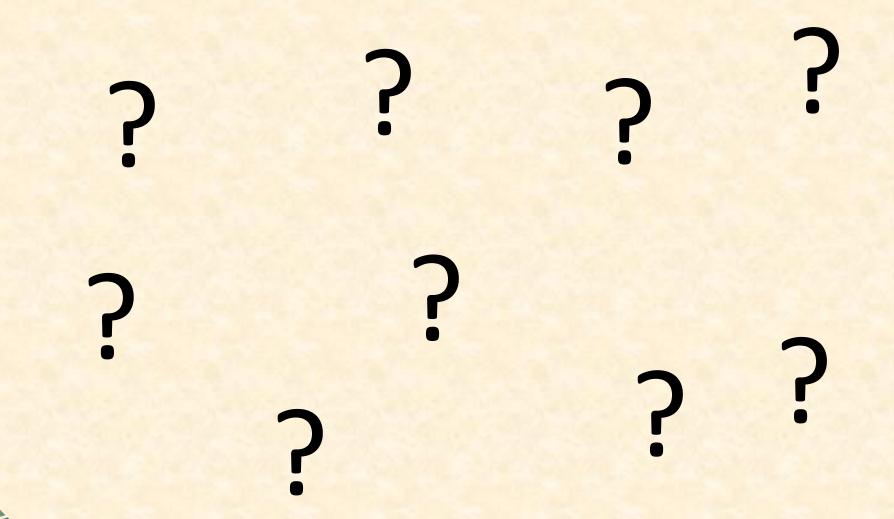
ELK-Verified Anomaly

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Kibena	Machine learning job tips Kibana Guide (7.3) Elastic	Michigan State University - Calendar - Event details
📕 🚺 Machine Learning		
O Job Management Anomaly Explorer Single Metric Viewer Data Frames Data Visualizer S	Settings	Image: Big 26, 2019 @ 18:48:00.00 → Sep 7, 2019 @ 14:40:00.3 C Refrest
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What's left to do?

- Improve Accuracy Of Current Models
- Develop More Models
- Introduce Weighted Model Scoring
- Introduce Different Manufacturing Plants' Data

Questions?



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