MICHIGAN STATE UNIVERSITY

Alpha Presentation
Profiling Manufacturing Plant Computer Network Traffic
The Capstone Experience
Team GM

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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

- GM Plant + Network Monitoring Tool
- Netflow Log Server
- MySQL
- Tableau
- Sklearn
- GM Network Security Team
Anomaly Score Aggregate
Duration Model
Client Byte Model
Server Byte Model
ELK-Verified Anomaly

August 28th 2019, 20:15:00
value: 559488060
upper bounds: 169516967
lower bounds: 0
What’s left to do?

• Improve Accuracy Of Current Models
• Develop More Models
• Introduce Weighted Model Scoring
• Introduce Different Manufacturing Plants’ Data
Questions?