MICHIGAN STATE UNIVERSITY

Beta Presentation

Test Driven Development for Embedded Software

The Capstone Experience

Team Magna TDD4ES

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Fall 2024

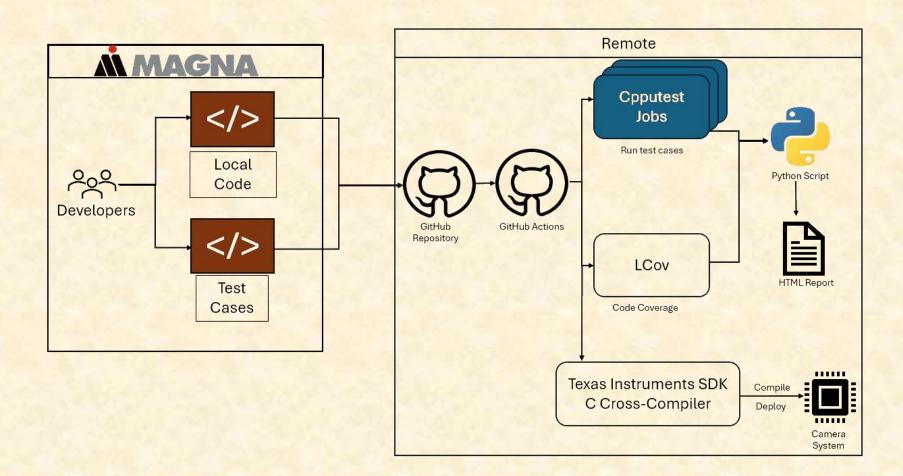


From Students... ...to Professionals

Project Overview

- Magna is one of the largest automotive suppliers.
- Problem: Engineers are working with large, untested code bases
- Provide test cases for embedded software code
- Create a continuous integration pipeline to run test cases

System Architecture



GitHub Actions – Build Workflow

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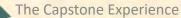
Parallel Jobs - Independent Test Cases

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Generated Test Report

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dcc_buff_size_Equal0	0.001s	PASS	
FailureAtvxMapUserDataObject	0.000s	PASS	
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Test Name		Time	Status
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What's left to do?

- Features
 - GitHub Actions integration for Multi-Cam codebase
- Stretch Goals
 - GitHub Status Badges
 - Additional GitHub Actions integration (pull request blocker, email notifications)
- Other Tasks
 - Technical documentation
 - Project Video

Questions?

