

# INTERNSHIP REVIEW

BURKE JAEGER, WINTER 2022 INTERN



FG-AM-63 | March 2022  
Burke Jaeger

**IT AMERICAS**  
> Driving Innovation Together.

**BMW  
GROUP**



ROLLS-ROYCE  
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# ABOUT ME



Cranford, New Jersey



Computer Science  
Dartmouth College  
Spring 2023



FG-AM-63  
Team: Spider Testing Services  
Product: Field Management System



# WHAT IS SPIDER TEAM TESTING?



'We get the bugs out' of BMW Group Applications and Services



We Work Directly with Project Teams in FG-AM 63



We Utilize Agile Methods and Toolsets

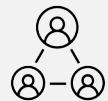
- Sprint Planning
- Daily Standups
- Transparent Documentation of Work



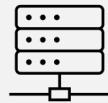
We Complete Manual and Automated Tests



# WHAT IS FIELD MANAGEMENT SYSTEM 3.0?



Relations Management System for Dealers



Tracks Interactions between Field Managers and Dealers



Integrates with New BMW Data Analytics Platform for KPIs



Implemented the MVP Release



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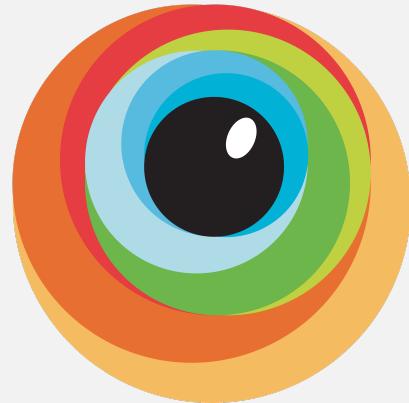
# HOW DID I CONTRIBUTE?

- Process Documentation for Onboarding and Mac-Building
- Manual and Automated Testing
- Cross-Device UI Validation
- Defect Validation & Documentation
- Sample File Suite for Testing
- Defect Discovery
- Test Scenario Creation
- Collaboration with Developers



# CROSS-DEVICE UI VALIDATION

- BrowserStack Live Testing on Real Devices
  - Enhanced Testing with Multiple Device & Platforms
  - No Emulators or Purchasing of Devices
- Validating UI Accessibility and Refinements
- Pre-emptively Identifying Defects for Features in Future Releases
  - Tablet and Mobile in future FMS Releases



BrowserStack Live

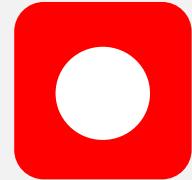


# DEFECT VALIDATION & DOCUMENTATION

- Providing Developers a Clear Picture of Issues
- Capturing Defects in JIRA and Linking to Failed Test Cases
- Testing in Isolated Environment Before Code Deployed to a Staging Environment
- Communicating with Developers to Ensure Defect is Resolved



JIRA

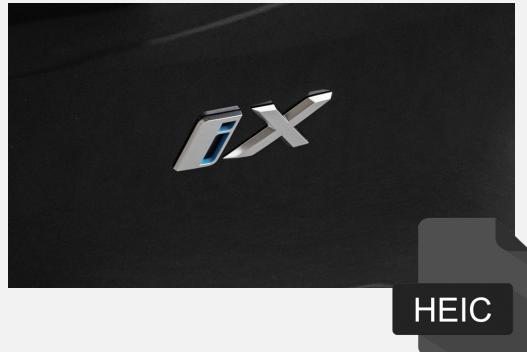


# SAMPLE FILE SUITE

- Identified Requirement for Accepted File Extensions and Sizes
- Created Test Data and Executed Against the Test Data
- Created a Repository of 60+ Sample Files
- Providing Test Engineers a Resource for Future Tests
- Defect Discovered → Some Required File Types Rejected by Product

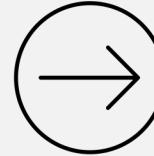
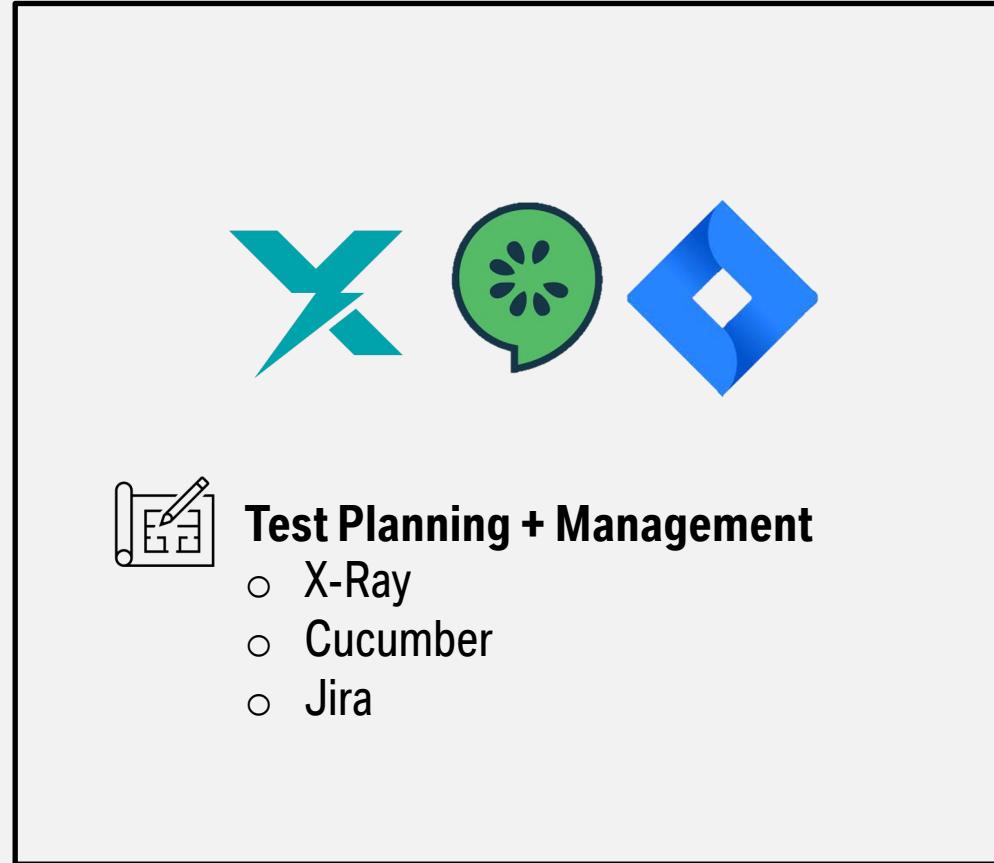


BitBucket



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# LEARNED TOOLSETS: AUTOMATED TESTING

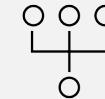


# LEARNED TOOLSETS: AUTOMATED TESTING



**Automation Environment**

- Jenkins
- BrowserStack Automate
- Testcafe



**Source Control**

- Fork



**Multiple Device Testing**

- BrowserStack Live



# FINAL THOUGHTS

# THANK YOU.



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