MICHIGAN STATE UNIVERSITY

Beta Presentation

Connected Vehicle Protocol Test Harness

The Capstone Experience

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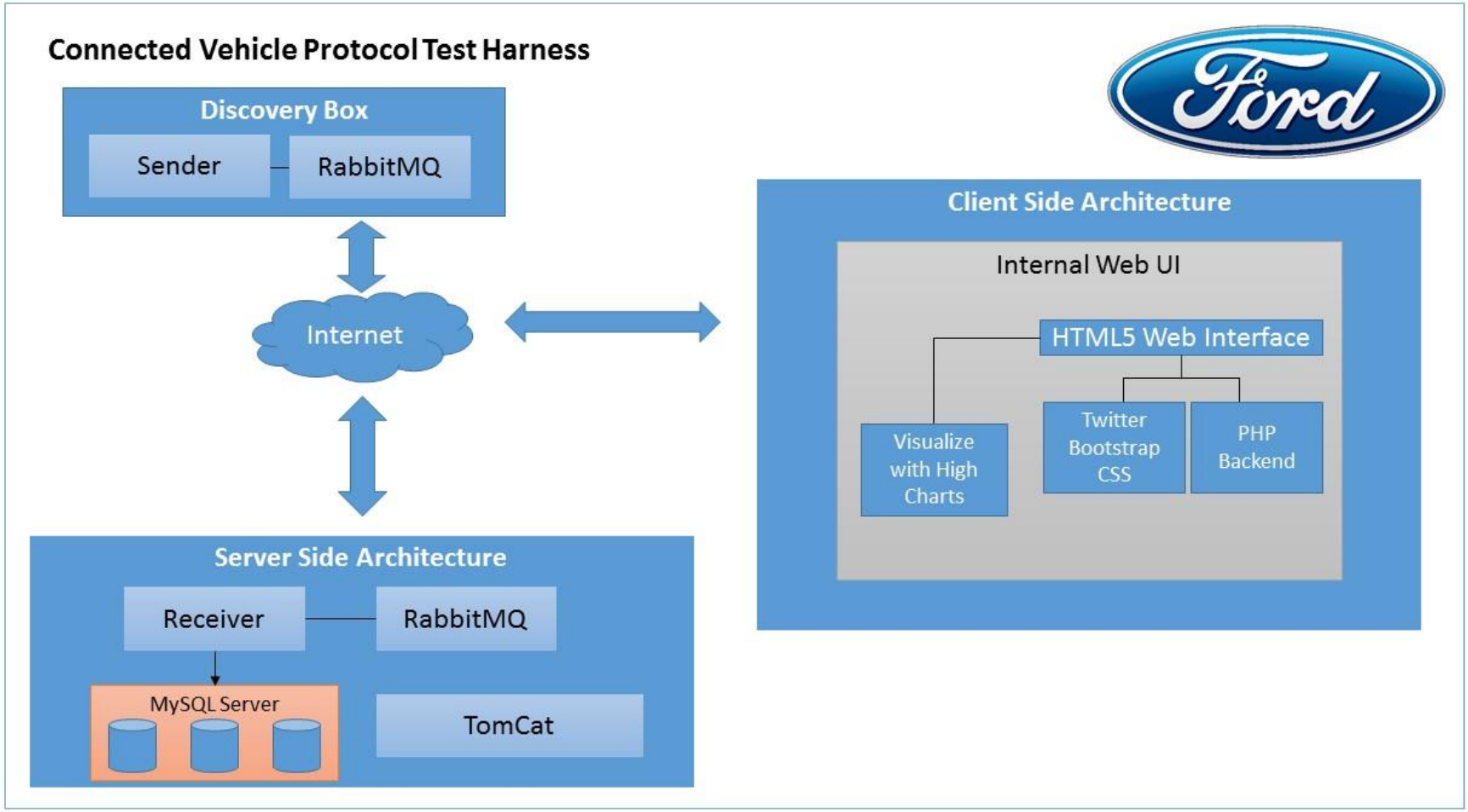
From Students…
…to Professionals

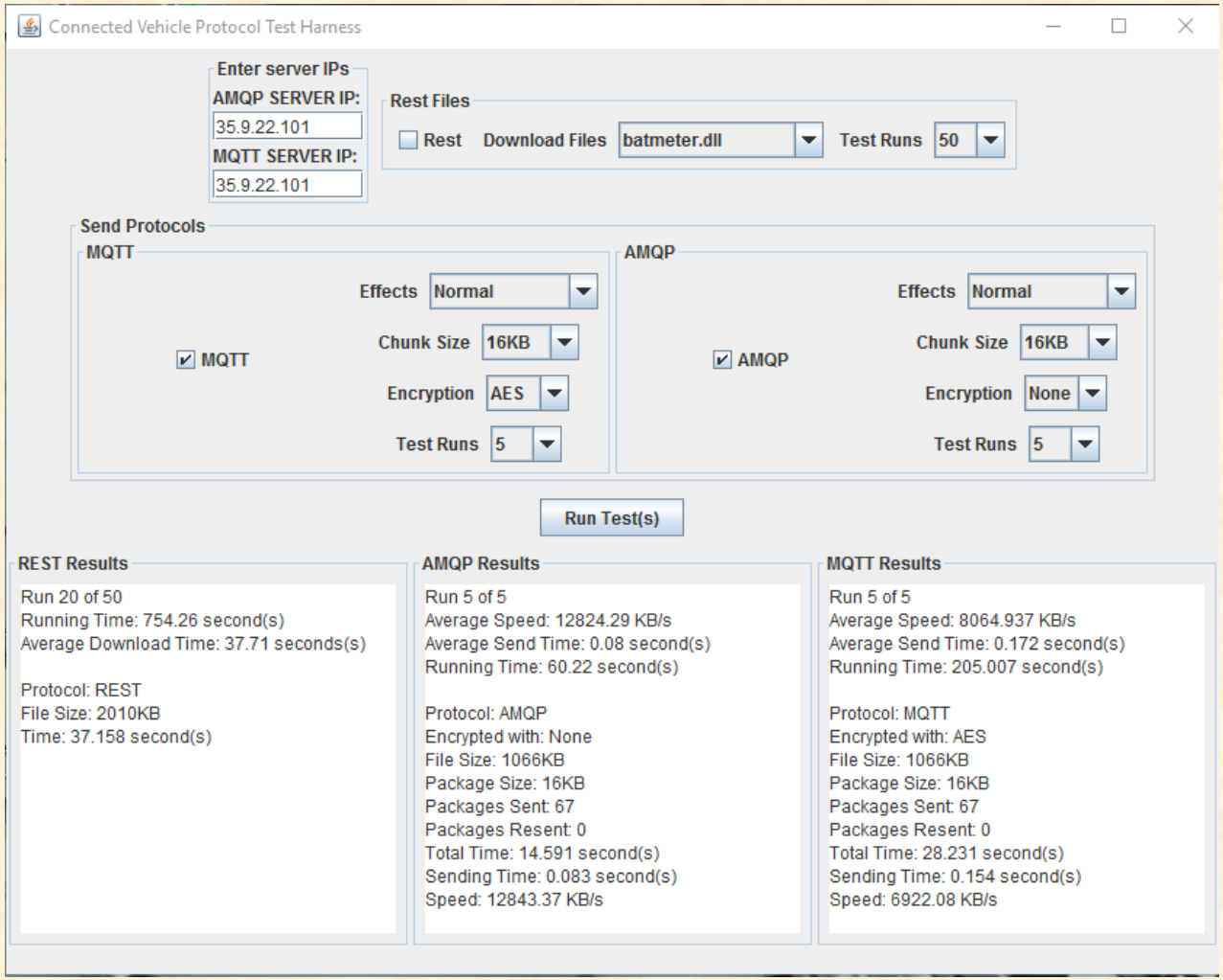
Project Overview

- Variety of Messaging Protocols
- Using the Discovery Box talk to a server
- Performance benchmark
- Test results viewed with a web interface
- Why is our project important?
  - Protocol Efficiency/Reliability
  - Protocol Ease of Use

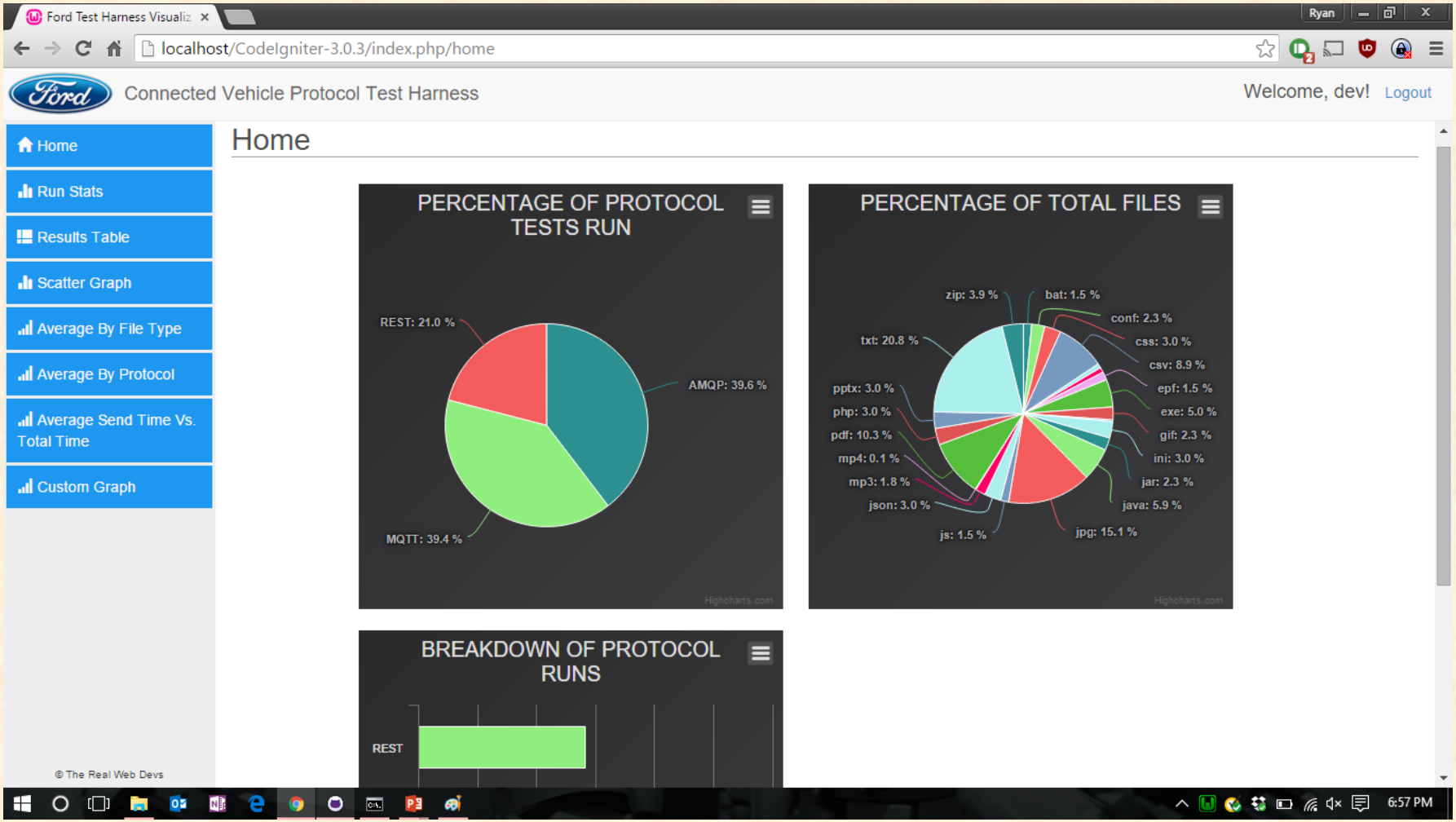
System Architecture



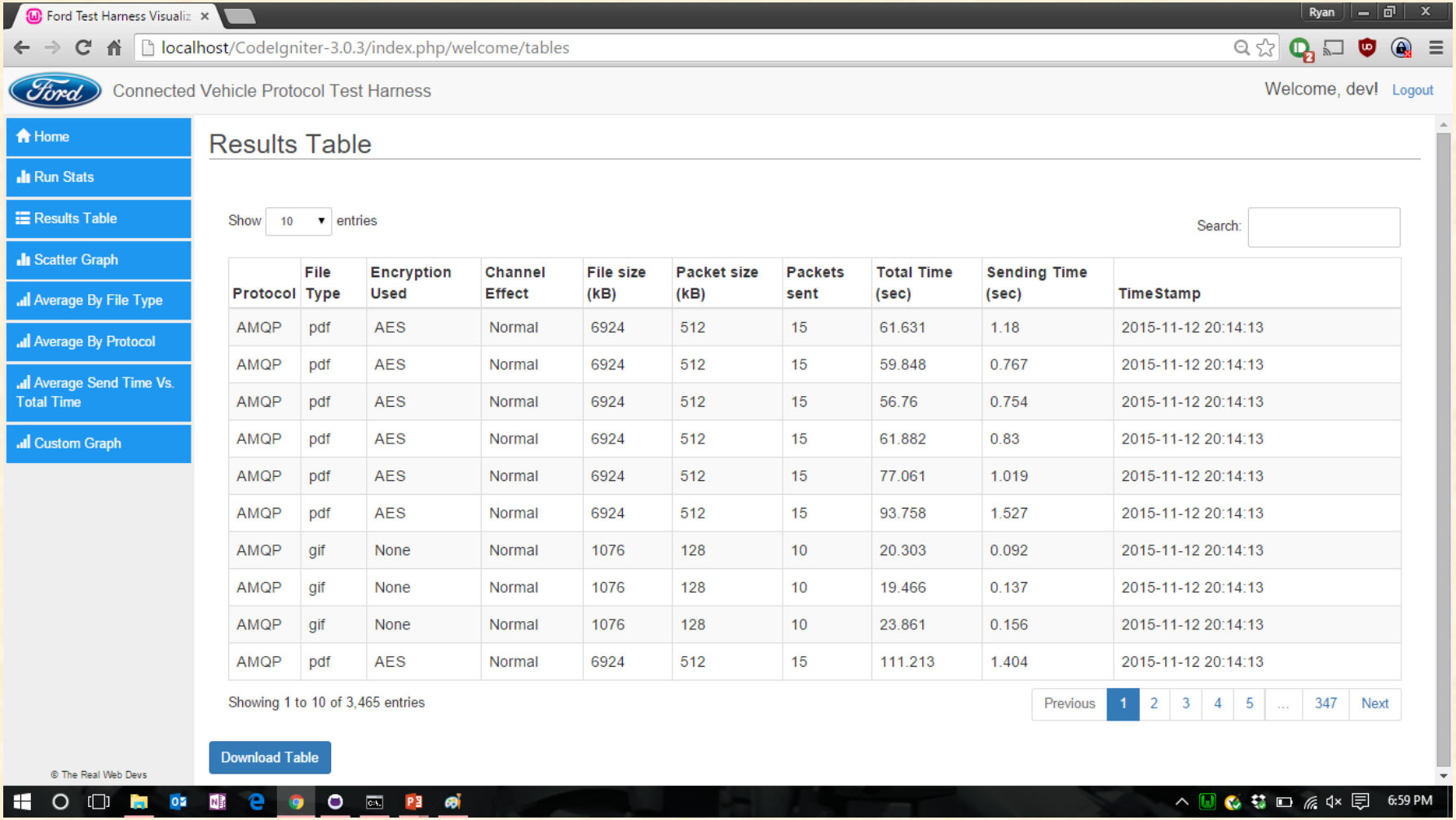
Discovery Box GUI



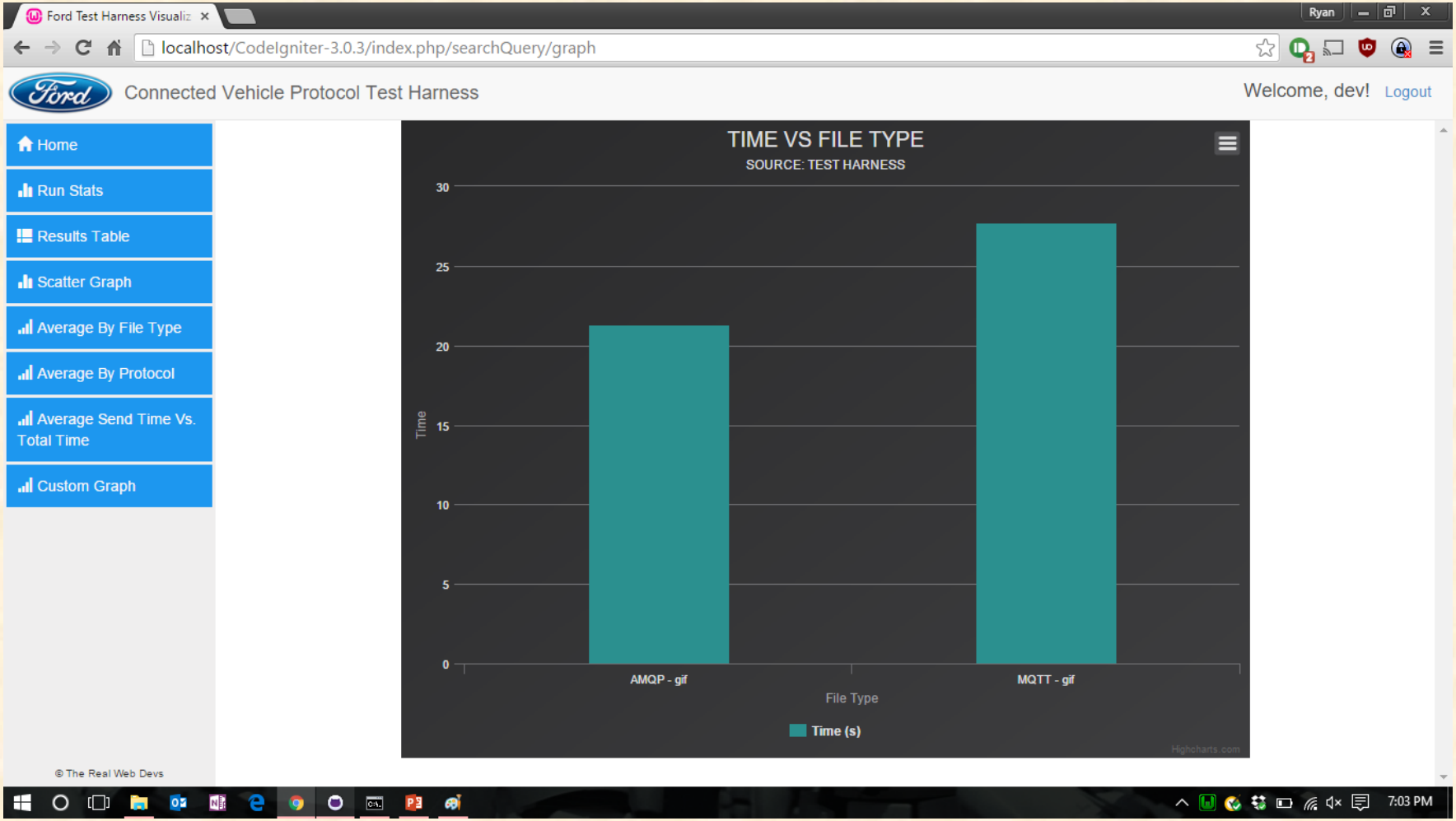
Home Page


Ford Test Harness Visualiz
Ryan
localhost/CodeIgniter-3.0.3/index.php/home
Connected Vehicle Protocol Test Harness
Welcome, dev!
Logout
Home
Run Stats
Results Table
Scatter Graph
Average By File Type
Average By Protocol
Average Send Time Vs. Total Time
Custom Graph
© The Real Web Devs
Home
PERCENTAGE OF PROTOCOL TESTS RUN
REST: 21.0 %
AMQP: 39.6 %
MQTT: 39.4 %
Highcharts.com
PERCENTAGE OF TOTAL FILES
zip: 3.9 %
bat: 1.5 %
conf: 2.3 %
css: 3.0 %
csv: 8.9 %
epf: 1.5 %
exe: 5.0 %
gif: 2.3 %
ini: 3.0 %
jar: 2.3 %
java: 5.9 %
jpg: 15.1 %
js: 1.5 %
json: 3.0 %
mp3: 1.8 %
mp4: 0.1 %
pdf: 10.3 %
php: 3.0 %
pptx: 3.0 %
txt: 20.8 %
Highcharts.com
BREAKDOWN OF PROTOCOL RUNS
REST
6:57 PM

Results Table



Custom Graph



What's left to do?

- Code cleanup
- Final Ford Documentation
- Project Video
- Design Day