

# Replication of RESTest

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# Introduction

- Background:
  - RESTest is a framework for automated black-box testing of RESTful web APIs
- Motivation:
  - Fortech LLC - Web Developer - December 2020 to Present
  - Push for increased API development and structure
- Problem:
  - Lack of standardized testing of APIs
  - Applying these techniques in RESTest to APIs at my place of work

# Proposed Work

- The primary goal of this project is to understand, replicate, and expand to different problems.
  - Understand - Learning the research already done and understand how the tool is specifically working
  - Replicate - This includes re-creating test cases for APIs provided by the developers and applying the tool to new APIs
  - Expand - Expand the principles and techniques within RESTest to to work for different types of APIs

# Evaluation Plan

- Evaluation of the processed outlined previously will be through the monitoring on the code detection rate
  - This will be in comparing the results achieved by RESTest developers versus my results
- Comparing the results obtained in documented test cases versus APIs not tested by the developers
- The ability to understand the code behind RESTest and whether it can be used or expanded upon

# Feasibility

- Milestone 1 (9/30):
  - Providing a high level overview of the process, tools, and techniques being used within RESTest
- Milestone 2 (10/28):
  - Detailed documentation on the recreating of developer test cases along with new test cases
- Milestone 3 (11/18):
  - Analysis of whether the techniques being used within RESTest can be applied in other tools or if they can be improved upon