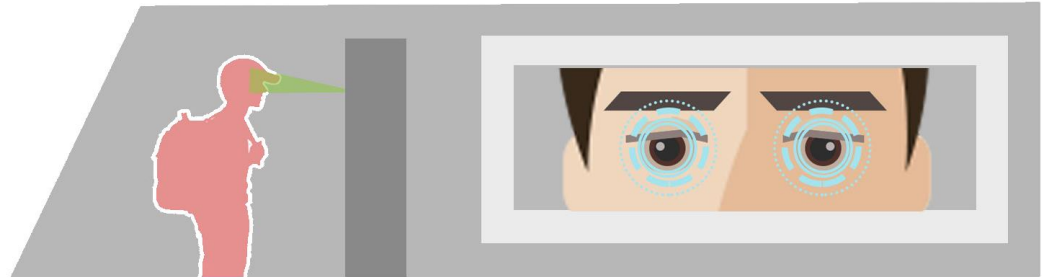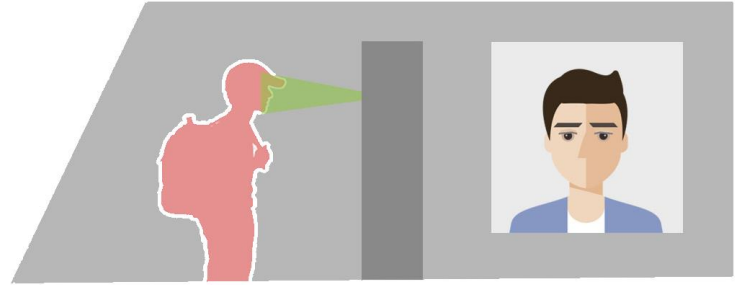# Image Analysis API

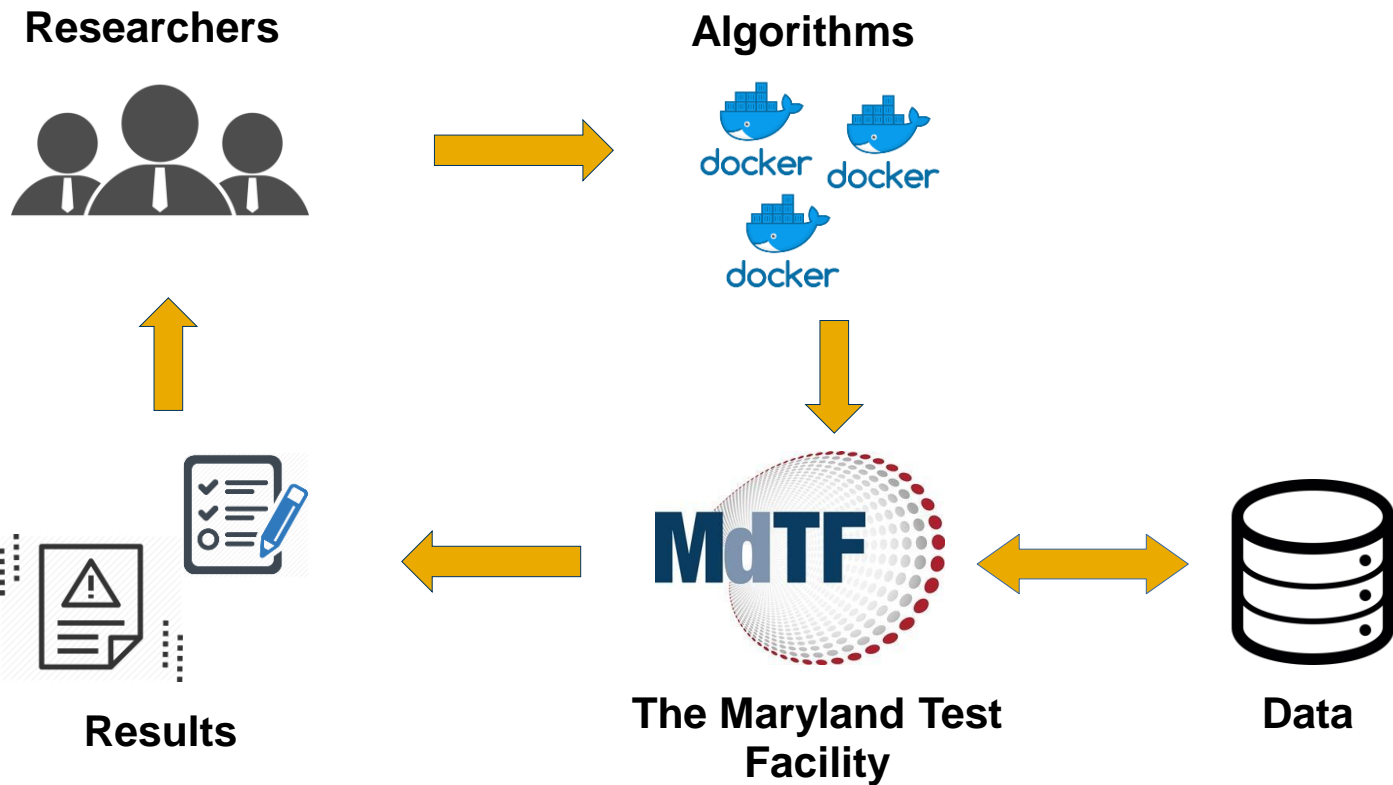## The Maryland Test Facility

MdTF Image Analysis API

- Goals:
  - Provides a uniform interface for MdTF // DHS S&T research partners to submit image analysis algorithms to the MdTF

  - Allows for rapid prototyping of research algorithms via the generic API

  - Keeps MdTF datasets sequestered

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Overview

Implementation Details

- Algorithms must:
  - Be provided in a docker image

  - Implement and expose the specified API

  - Be submitted via the MdTF upload page

  - Identify a valid dataset for evaluation

  - Provide consistently formatted output from the `/v1/analyze-image` endpoint (i.e. always return the same JSON object format)

  - Handle parallel requests

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Results Format

- Results will:
  - Be returned in a CSV format via automated email

  - One row per image submitted to the image analysis algorithm containing:
    - An image identifier

    - An error string (empty if no error is reported)

    - An additional column for each corresponding field reported by the `/v1/analyze-image` **endpoint**

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Example

- **Output of a** `/v1/analyze-image` **call for three separate images:**

```
{
  "AnalysisScore": "5.0002",
  "NormalizedScore": "0.50002",
  "ErrorLog": ""
}
```

```
{
  "AnalysisScore": "0",
  "NormalizedScore": "0",
  "ErrorLog": "No Face Found"
}
```

```
"503: Service Unavailable"
```

- **Corresponding returned CSV, with headers:**

```
ImageID, ServerError, AnalysisScore, NormalizedScore, ErrorLog
17,         "",          "5.0002",        "0.50002",  ""
42,         "",          "0",             "0",        "No Face Found"
73,         "503",       "0",             "0",        ""
```

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Questions?

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- For a timely response, please use the community email address info@mdtf.org

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