

# GIGL

## Group 3 Project - Tutorial

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GMU CYSE 650 Cyber Risk Modeling and Analysis Tools

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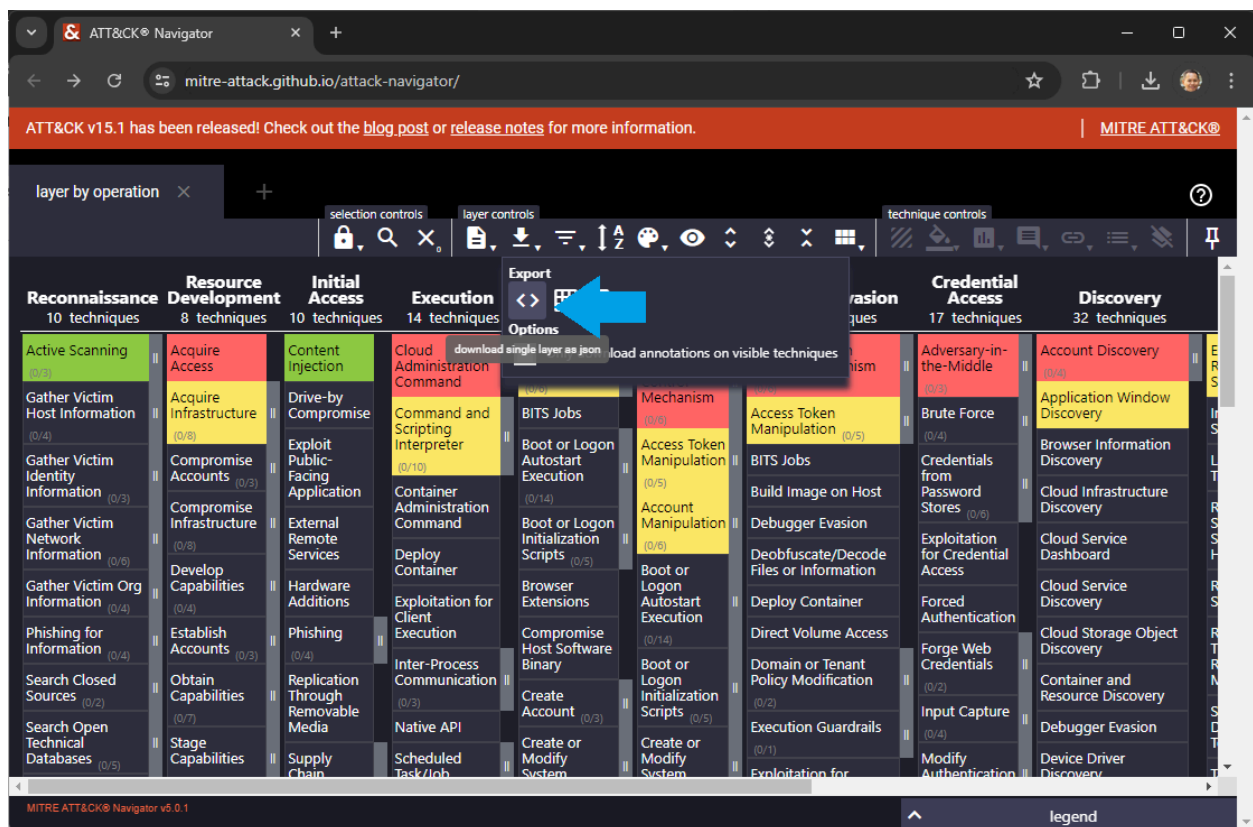
Software that transforms an execution graph path from MITRE ATT&CK into Bayesian representation using the UnBBayes API, incorporating the capacity to elicit and measure uncertainty in the new model representation

### 1. Setup Endpoint

Browse to UnBBayes modeling framework <https://sourceforge.net/projects/unbbayes> and install. The operation of the tool is outside the scope of this tutorial

### 2. Prepare Input

Browse to MITRE ATT&CK Navigator, <https://mitre-attack.github.io/attack-navigator> and generate input to GIGL by Exporting the layer to JSON. The remaining operation of the web app is outside the scope of this tutorial



### 3. Download Repository

```
git clone https://github.com/chrimson/GIGL.git  
cd GIGL
```

### 4. Enable Required Dependency

```
pip install pgmpy
```

### 5. Execute

```
python3 start.py layer_by_operation.json mitre_attack_bayesian.net  
Bayesian Network model is valid  
Bayesian Network exported
```

### 6. Examine Result

Run UnBBayes and load the output Bayesian Network file

