

**Paper Title:** DeepSniffer: A DNN Model Extraction Framework Based on Learning Architectural Hints

**Code Link:** <https://github.com/xinghu7788/DeepSniffer>

## Software Requirements

### Environment Setup

Orig Source Code:	<code>git clone <a href="https://github.com/xinghu7788/DeepSniffer.git">https://github.com/xinghu7788/DeepSniffer.git</a></code>
Data & Model Checkpoints: <a href="#">(here)</a>	<a href="https://drive.google.com/drive/folders/1JrTkT9C0klWFMK4x-KSMqvPJ7k3TL6U">https://drive.google.com/drive/folders/1JrTkT9C0klWFMK4x-KSMqvPJ7k3TL6U</a>

**Use the Patch file provided for some modifications to the original code.**

### **#To test Model Extraction using DeepSniffer Install**

Python Version	3.6.v
Conda	>= 3. v
Tensorflow	pip install tensorflow==2.0.0

### **#To test Adversarial Attack with DeepSniffer, install**

#### 1. Dependencies and Library:

Python Version	3.6.v
Conda	>= 3. v
Tensorflow	>= 1.4 (pip install tensorflow==2.0.0)
Pytorch	1.8.0 ( Strictly Recommended)
Cuda + GPU (Recommended)	>= 10.2
To Install Pytorch use this command:	<code>conda install pytorch==1.8.0 torchvision==0.9.0 torchaudio==0.8.0 cudatoolkit=10.2 -c pytorch</code>
Pytorch Installation ( <a href="#">Refer to this</a> )	<a href="https://pytorch.org/get-started/previous-versions/">https://pytorch.org/get-started/previous-versions/</a>
scipy	Pip install scipy

Note: Model will fail to work if Pytorch version is above 1.9.0 (torch-library zero gradients() API is not supported beyond this)

#### 2. Setup

Extract the data and model checkpoint to the file path mentioned in the README.md file.

**Unzip the files in the "models" to the directory of DeepSniffer/AdversarialAttack/**

**Unzip the files in "data\_100" under the directory  
of DeepSniffer/AdversarialAttack/data\_100**

Now refer to the README.md file.