

CFRS 772: Forensic Artifact Extraction

Final Project

1. Write a Python module or modules to meet the following requirements:

- i. You may provide a new forensic capability, extend an existing capability, or replicate (in function only) an existing capability.
- ii. Your solution must integrate with Volatility or Autopsy; integration with other open source tools, or a non-integrated solution, must be pre-approved by the instructor.
- iii. Your solution must include:
 1. appropriately commented source code
 2. solution documentation (e.g., a README.txt file)
 - a. how it works
 - b. instructions for loading and running under Volatility or Autopsy
 - c. how to use it (parameters, etc.)
 - d. how to test it
 3. sample data with which to test your solution

2. Sources for ideas:

- i. Past Autopsy plugin contest submissions and winners:
<http://www.osdfcon.org/2015-event/2015-module-development-contest/>
<https://www.osdfcon.org/2016-event/2016-module-development-contest/>
<https://www.osdfcon.org/2017-event/2017-module-development-contest/>
<https://www.osdfcon.org/2018-event/2018-module-development-contest/>
- ii. Autopsy feature requests:
<https://github.com/sleuthkit/autopsy/labels/Feature%20Request>
- iii. Past Volatility plugin contest submissions and winners
<http://www.volatilityfoundation.org/#!2013/c19yz>
<http://www.volatilityfoundation.org/#!2014/cjpn>
<http://www.volatilityfoundation.org/#!2015/c1qp0>
<https://volatility-labs.blogspot.ca/2016/12/results-from-2016-volatility-plugin.html>
<https://volatility-labs.blogspot.ca/2017/11/results-from-5th-annual-2017-volatility.html>
<https://volatility-labs.blogspot.com/2018/11/results-from-annual-2018-volatility-contests.html>
- iv. Volatility plugins
<https://github.com/volatilityfoundation/community>
- v. TSK module ideas (would implement as plugins for Autopsy; dated, but maybe useful)
<http://sourceforge.net/p/sleuthkit/mailman/message/29501339/>
<http://sourceforge.net/p/sleuthkit/mailman/message/32037509/>
- vi. Open lists of forensics ideas:
<http://www.forensicfocus.com/project-ideas>
http://www.forensicswiki.org/wiki/Research_Topics
- vii. Class lectures, labs, and homework.

3. Rubric (35 points total):

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|---------------|-------------------------------------------------------|
| (0-5 points) | Milestones |
| (0-10 points) | Installs and runs cleanly |
| (0-10 points) | Quality of documentation |
| (0-5 points) | Works on test data, works on other inputs, robustness |
| (0-5 points) | Presentation |