Contract for Feature Extraction Engine

We propose to make a Feature Extraction Engine for James Halladay with the following understandings:

What we propose to make and/or do:

We will build a tool that extracts natural language components and corresponding frequencies from network traffic. The network traffic will be in the form of encrypted Packet Capture Files (PCAP). This process will take raw PCAP files and produce a tabular dataset from their statistical data. We will have it substantially completed by showcase, April 28th 2023, and have it handed over by the end of the semester, May 12th 2023.

Stretch Goals:

1. *Integrating a GPT model into the extraction engine*
2. *Extracting statistical data*
3. *Building a UI for it*

What we need from James Halladay to accomplish this task

The main thing that we need are the PCAP files themselves and to make sure to have a commitment of contract that we have already established to have weekly meetings. Also we expect to be shown the software that will be needed in order to accomplish this project, an example would be a demonstration of Pandas.
The finished converted data will usually be stored in a folder next to the previous PCAP files, while the File Extraction Engine's code will be stored on github.

What will happen when these guidelines change

In the event that guidelines change we will converse either through online or face to face to make sure how those guidelines have affected the project and how we will be going forward.

What we expect in compensation

What we expect in compensation is that we will be getting a grade on this project for our Software engineering class. Also, if the completed software is used in later research or papers we are to be credited as makers of the software.

What limitations we have

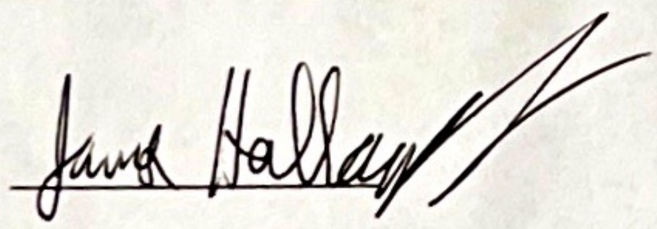
We are a student team and this is a student project. This project comes with no particular guarantees, including in particular warranty or suitability for a particular purpose, or long-term support.

Ownership and Fair Use of Intellectual Property

The Intellectual Property created during this project (for example software, business processes, and artwork) is granted permanently for use and extension for the business owner, but is ultimately owned by the respective creator(s) who are not limited to reuse or extend this work elsewhere. By the end of this project, a code repository with the software will be made available to the client.

The software may also be used as future demonstrations at Colorado Mesa University.

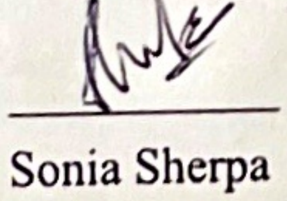
Signed & Dated:



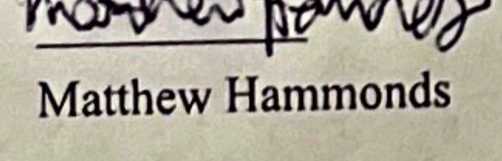
Name: James Halladay

EMail: jehalladay@mavs.coloradomesa.edu

Phone: 9706835652



Sonia Sherpa



Matthew Hammonds