**Sprint Review Report – Team Portion**

**IOWR-NIDS**

**Sprint dates: 11/8 – 11/22**

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| **Team Member** | **Role** |
| Andrew | Team Leader |
| Alex | Machine learning development, Scrum logger |
| Joe | Front end development |
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**Point Scale:**

Priority letter grade A-F that identifies what priority we feel should be assigned to each user story. Where A is the highest priority that needs to be done soon and F is the lowest priority for tasks that should be put on the backburner.

Expected time number grade is the roughly estimated number of weeks that we expect the task to take.

Points should be written in the form A3 where it is priority “A” and we expect the task to take 3 weeks to complete. A dash “-” is used for the expected time when a task is continuous.

**Backlog**

Backlog of User Stories that we are not currently working on.

**Story 2:** As a network administrator I want to utilize a graphical user interface so that I can easily monitor the network.

**Task 5:** Implement the model page with Dash

**Points:** F2

**Due Date:** Beyond MVP

**Members assigned**: Joe

**Story 3:** As a Network Administrator I want to see the unknown network packets so that I can improve the model training.

**Task 5:** Provide a way to save re-identified packets

**Points:** D

**Members assigned:** Joe, Andrew

**Story 4:** As a Network Administrator I want see how well the model is working so that I can tell when it needs to be re-trained.

**Task 2:** Identify a method of finding model reliability

**Points:** D4

**Members assigned:** Alex, Andrew

**Task 3:** Display model reliability on UI

**Points:** C2

**Members assigned:** Joe

**Story 7:** As a Network Manager I want to select old models so that we can revert problems if they occur.

**Task 2:** Select Model version using Dash

**Points:** C?

**Members assigned:** Joe

**Task 4:** Update Dash for new model

**Points:** A3

**Members assigned:** Joe, Alex

**New/Pending**

**Story 9:** As a practitioner, I want to connect all of the independent components to make a whole system.

**Task 1:** Implement a database (schema) with PostgreSQL

**Points:** A1

**Members assigned**: Andrew

**Task 2:** Create a server-client database-interface system with Pyro5

**Points:** A3

**Members assigned:** Andrew, Joe

**Task 3:** Read packets from the database to the client

**Points:** A2

**Members assigned:** Joe

**Task 4:** Insert packets from the feed into the PACKET table

**Points:** B2

**Members assigned:** Andrew

**Task 5:** Instantiate a model for each connection.

**Points**: B2

**Members assigned:** Alex, Joe

**Task 6:** Run the packet feed through the model, inserting results into the PACK\_LABEL table

**Points:** B2

**Members assigned:** Andrew, Alex, Joe

**Task 7:** Run through the entire pipeline to verify success

**Points:** A2

**Members assigned:** Andrew, Alex, Joe

**Ready**

**Story 2:** As a network administrator I want to utilize a graphical user interface so that I can easily monitor the network.

**Task 4:** Populate inputs and outputs with data from a middleman between itself and the model.

**Points:** C4

**Due Date:** 11/16

**Members assigned:** Joe, Alex

**Story 3:** As a Network Administrator I want to see the unknown network packets so that I can improve the model training.

**Task 4:** Provide a way to view packet data

**Points:** B2

**Due Date:**

**Members assigned:** Joe

**Active/Ready for review/Complete**

**Make sure to put the Complete stories/tasks before the Ready for review and before Active.**

**Story 8:** As a practitioner I want to define packet structure and storage so that we can deliver data to project subsystems.

**Task 2: Store packets in Database**

**Points:** A2

**Due Date:** 11/15

**Status:** Active

**Members assigned:** Andrew

**Task 3: Send packets to Dash interface**

**Points:** B1

**Due Date:** 11/20

**Status:** Complete (?)

**Members assigned:** Andrew, Joe

**Task 4: Send packets to model**

**Points:** B2

**Due Date:** 11/15

**Status:** Active

**Members assigned:** Andrew, Alex

**Task 5: Store returned packets from model**

**Points:** B1

**Due Date:** 11/25

**Status:** Active

**Members assigned:** Andrew, Alex

**Story 9:** As a practitioner, I want to connect all of the independent components to make a whole system.

**Task 1:** Implement a database (schema) with PostgreSQL

**Points:** A1

**Due date:** 11/29

**Status:** Complete

**Members assigned**: Andrew

**Task 2:** Create a server-client database-interface system with Pyro5

**Points:** A3

**Due date:** 11/29

**Status:** Complete

**Members assigned:** Andrew, Joe

**Task 3:** Read packets from the database to the client

**Points:** A2

**Due date:** 11/29

**Status:** Complete

**Members assigned:** Joe

**Task 4:** Insert packets from the feed into the PACKET table

**Points:** B2

**Due date:** 11/29

**Status:** Active

**Members assigned:** Andrew

**Task 5:** Instantiate a model for each connection.

**Points**: B2

**Due date:** 11/29

**Status:** Active

**Members assigned:** Alex, Joe

**Task 6:** Run the packet feed through the model, inserting results into the PACK\_LABEL table

**Points:** B2

**Due date:** 11/29

**Status:** Active

**Members assigned:** Andrew, Alex, Joe

**Task 7:** Run through the entire pipeline to verify success

**Points:** A2

**Due date:** 11/29

**Status**: Active

**Members assigned:** Andrew, Alex, Joe

**Backburner**

**Story 1:** As a practitioner I want to understand the project so that I can complete the project.

**Task 1:** Attend meetings

**Points:** A-

**Due Date:** Continuous

**Status:** Active

**Members assigned:** Andrew, Alex, Joe

**Task 3:** Discuss with team

**Points:** A-

**Due Date:** Continuous

**Status:** Active

**Members assigned:** Andrew, Alex, Joe

**Task 4:** Complete documentation

**Points:** A-

**Due Date:** Continuous

**Status:** Active

**Members:** Andrew, Alex, Joe

**Story 6:** As a developer I want to define more user stories so that we have better documentation.

**Task 1: Define more user stories**

**Points: D-**

**Members assigned: Andrew, Alex, Joe**

**Task 2:** Update GitHub with new stories

**Points:** C1

**Due Date**: Continuous

**Status**: Active

**Members assigned:** Andrew, Alex, Joe

**Task 3**: Keep Sprint Report Up to date

**Points**: C1

**Due Date**: Continuous

**Status**: Active

**Members assigned**: Andrew, Alex, Joe

**Scrum Meetings**

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| --- | --- | --- | --- | --- |
| **Date** | **Members Present** | **Progress** | **Challenges** | |
| November 8th | Andrew  Alex  Joe | Completed Sprint Report 3  Plans for Friday:  WORK ON SAD | SAD is really long and complex. | |
| November 10th | Andrew  Alex  Joe | SAD had some development  Plans for Monday:  Create RAD table (Alex)  Database schema (Andrew)  Database (Joe) |  | |
| November 13th | Andrew  Alex  Joe | RAD template created  Data gotten from pcap  No database work  Plans For Wednesday:  Work on RAD (everyone)  Draft email to Professor(Alex)  Create function for reading pandas (Alex)  Database work? (Andrew, Joe)  Instances for code (Joe) |  |
| November 15th | Andrew  Alex  Joe | Database work (Andrew)  Create function for reading pandas Done (Alex)  Plans for Friday:  Merge branches (all) |  |
| November 17th | Andrew  Alex  Joe | Do by Monday:  Instancing (Joe)  Get Database into Postgress(Andrew)  Get Model Working on network (Alex) |  |
| November 20th | Andrew  Alex  Joe | Do by Wendsday:  Get Database into Postgress and Work on Sprint (Andrew)  Warning popup (Joe)  Work on sprint document and save CLASSLIST dictonary(alex) | Lots of other work, and looming deadline |
| November 22nd | Alex  Joe | Connect to db in python | Code/branch integration |

**Other Team Meetings (longer than scrum)**

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| --- | --- | --- | --- | --- |
| **Date** | **Platform (in person, Zoom, Slack, Discord, MS Teams..)** | **Members Present** | **Progress** | **Challenges** |
| 11/8 | In-Person | Andrew  Alex  Joe | Finished Sprint report 3  SAD document work |  |
| 11/10 | In-Person | Andrew  Alex  Joe | SAD document work |  |
| 11/15 | In-Person | Alex  Joe  Andrew (half meeting) | Work on RAD document | Andrew was feeling unwell. |
| 11/17 | In-Person | Andrew  Alex  Joe | Merged files into one folder |  |
| 11/22 | In-Person | Alex  Joe | Finish SRR 4  Model data I/O | Thanksgiving |

**Client Meetings**

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| **Date** | **Members Present** | **Challenges/issues by the client** |
| November 16th | Andrew  Alex  Joe | Use Docker  Walk through architecture during presentation.  Show screenshots or video? (to Professor)  At least narrow view of the entire pipeline |
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**Retrospective (***At the end of the sprint a* ***Retrospective*** *should be held to see how the team is performing.* ***Psychological Safety*** *needs to be upheld at a Retrospective to ensure best results (hence no names in the table below.* ***Psychological Safety*** *occurs when everyone feels comfortable with speaking to everyone in the room. A study on Psychological Safety can be found with Google’s Project Aristotle. Go-to schedule for a Retrospective:*

*Check-in activity*

*Energizer*

*Review goals from last retrospective*

*Gather data*

*Determine goals for the next sprint*

*Check-out*

*Examples of each activity can be found at funretrospectives.com.*)

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| **Challenge** | **Resolution** | **Impact/Result** |
| Code integration | Lots of communication outside meetings | Slower progress |
| Illness (Andrew) | Working more cohesively | Slower progress |
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**Retrospective – continuous improvement**

**State any completed goals for the current sprint (not only project goals, but team dynamics, issues resolved within the team or team/client work).**

The database schema was established. Given this, we were able to connect the interface to sample some sample data that effectively mimics the MVP pipeline. A system was developed to manage these connections. Packets can be read and pushed to the model. Project branches were merged together to facilitate cohesive progress.

**State any future goals for the next sprint (not only project goals, but team dynamics, issues resolved within the team or team/client work).**

During the next sprint, it is imperative that we finish the MVP and prepare for our presentation. Any unresolved tasks that apply to the MVP must be completed by then.

MVP is defined as a complete pipeline from packet pcap data to a display on the GUI.