WYSIWYG Tensorflow Weekly blog posts

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CS463: Capstone Senior Design

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Abstract

In this document we will provide a list of all of the weekly blog posts in an organized fashion. This document will provide them based on term, week and author.

CONTENTS

1 FALL

1.1 Prior to weak 3

1.1.1 Behnam Saeedi

- Create a Google drive and calender (for todo list): A Google drive was created in order store the to do list. This to do list will help us to know what each member of the team has done. This drive also contains a document file with all our contact information (Name, phone number, emails, etc.) in it. hopefully this will help us to contact each other easily and keep in touch. Also it makes it easier for the Client to contact us in case they needed to. The Google drive then was shared between all group members and the client.

- Meet with Prof. Li: We met with our client Prof. Fuxin Li in order to discuss the project. This meeting took place on week 2's Wednesday from 3 to 4. During time we discussed our client's preferred form of communication, version control and language. Further more we talked about what he is envisioning about the projects and are his intended outcomes.

- Setup Github: GitHub page was setup and our documents were pushed there. Some of the writing required for makefiles and README.md was don e and pushed to the repository.

- Setup a planning session We had to come up with a good date for planning sessions. We used this planning session to work on abstract and other required document.

1.2 Week 3

1.2.1 Behnam Saeedi

- This Week's Achievements
  - Abstract: Abstract was finished by Connor Sedwick and prof read by me. We follows in class instructions for the abstract with regards to its length and general scope. Furthermore, I had a person from outside of our group read our abstract and asked for his input.

  - Latex: Latex was installed and used for creating our document. It is important to note that it is not necessary to install tex-full since that would install about 40GB of random language packs!

  - Concept GUI demo (What to expect): A visual graphics was created in order to demonstrate our vision of the graphical user interface to our client.

  - Problem Statement: Problem statement was written and revised multiple times by all the members of the group

  - Problem statement and Abstract approval: The problem statement and the abstract were approved by the client and group members and client signed the paper. The paper was later submitted to the drop off location.

  - Group name: A group name was selected: Visual Flow.

  - Weekly TA meeting setup (Doodle pull): A doodle pull was created in order to find a time which all of the members are free and able to attend the meeting. Later this information was communicated to the TA. The meeting time was setup at Friday 2:30 pm
  - Add people to repository: Instructor, Co-Instructor, TA, Client and all of group members were added to GitHub repository to contribute.

  - Encountered Problems: There was a mis communication with regards to due date for this assignment. We thought this assignment is due after the TA meetings.

- Possible Demos
  - Currently there is a small animation of possible user interaction being developed with the graphical images that were created originally as demo.
- Upcoming week's plans
  - Meet with Prof. Li: We need to meet with Professor Li. This matter was communicated with him and he suggests Wednesday 3:00 pm however, one of the group members will not be able to attend. So we decided to change the time.
  - Meet with group members for Wiki Page: Our group needs to get together to discuss distribution of work load and responsibilities of each member ASAP.
  - Look for plausible python or XML GUIs solution: We need to look into multiple possible solutions for designing our GUI. Currently the preferred solution is Python GUI.
  - Meet with the TA: This Friday we need to meet with TA at the day and time which was specified by the TA.
    Get the GitHub Wiki page finished: Each member need to have their GitHub Wiki entries finished and submit their work by Friday

1.2.2 Collin Dorsett

- This Week's Achievements
  - Finished Abstract
  - Finished Problem Statement
  - Met with Jon Dodge (TA)
- Upcoming week's plans
  - Set up meeting with Dr. Li
  - Update Requirement Document

1.3 Week 4

1.3.1 Behnam Saeedi

- This Week's Achievements
  - We contacted Prof. Li to come up with a date for a meeting, due to an emergency I could not make it to his recommended time for the meeting so we decided to postpone the meeting.
  - Our doodle pull was updated to accommodate with our time of availability in order to meet with our group members and client
  - The Abstract, requirements and problem statement was revised in order to accommodate with instructor's recommendation and feed backs
  - Worked on an animation to demonstrate the user interface to show to our client
  - GitHub wiki page was setup and the weekly journal for week 3 was submitted. This system is behaving somewhat unexpectedly with the page linking and link creation according to my experience, home page (and apparently only home page) can have

- Encountered Problems
  - I encountered problems with GitHub's Wiki, it is very difficult to get the links working. This problem was solved and all of our links are working properly now.
  - We are having major time conflicts for meetings, I personally have to cope with class and my part time job and it is very difficult to come up with a good time to meet and discuss our project.
  - We met with our TA and went through our and his responsibilities. He will provides us with guides and it is our job to push the project forward. Also we talked about our papers and assignments that are going to be due. He will help us with the writing and drafts.
- Possible Demos
  - No possible demos for this week.
- Upcoming week's plans
  - We need to talk about the general structure of our project and come to a good agreement with the client.
  - We have a proposed solution to the project that seems to have a good potential. Our group members are on agreement with the solution and our client seems to like the proposed solution.
  - We need to organize all of the group and come up with series of conduct codes to make sure non of the group members would not do anything unexpected. Furthermore, we need to talk to everyone to improve their availability.
  - We need to work on the problem statement and have the first draft ready as soon as Wednesday in order to be able to read and edit the draft and improve on it.
  - We need to sign the document and submit it.

1.3.2 Connor Sedwick

- Meet with Prof. Li
- Meet with TA
- Edit Problem statement and receive sign-off
- Begin requirements document
- Made a few edits to the Problem definition.
- added an intro
- edited grammar errors
- Due to scheduling conflicts we were unable to meet this week to discuss progress.
- Dr. Li would like to plan a meeting for next week.
- Should print out edited problem statement for meeting.
- Beginning next week we need to create and edit a requirements document to decide how to divide up the workload. We need a Gantt chart and an idea of what the architecture of our project will look like.
- Began looking over TensorFlow and ran some tutorials with Python.

1.3.3 Collin Dorsett

- This Week's Achievements
  - Updated Problem Statement
  - Received Problem Statement sign off
  - Updated Requirement Document
  - Met with Jon Dodge (TA)

- Setbacks
  - Unable to meet with Dr. Li due to schedule conflicts
- Upcoming week's plans
  - Set up meeting with Dr. Li
  - Requirement Document

1.4 Week 5

1.4.1 Behnam Saeedi

- This Week's Achievements
  - We managed to finalize our Abstract
  - We added and modified the abstract to match our client's request
  - Client signed the abstract and the assignment was submitted
  - The requirement document was finished based on IEEE guidelines:
    - Content table
    - References
    - Glossary
    - Gantt chart
  - First draft of the requirement document was submitted
  - Gantt chart meets with some of the possible deadlines that the term has
- Encountered Problems
  - The meeting with the client had to be canceled (He was feeling sick)
  - Heavy load of other classes was slowing different tasks down
- Possible Demos
  - No possible demos for this week.
- Upcoming week's plans
  - Re plan the meeting with the client and come up with a good time
  - Work on the next task listed on the Gantt chart
  - Talk to he client about details of the project

1.4.2 Connor Sedwick

- Complete rough draft of Requirements Document
- Meet with Dr. Fuxin Li
- Meet with Jon Dodge
- Completed rough draft version of Requirements document.
- May need to add more to Gantt chart
- Should add section about dividing workload
- Add more feature descriptions
- Met with Jon Dodge to discuss Requirements Document
- Need to reschedule meeting with Dr. Li due to illness.
- 10/27/16: Created a template for our Requirements Document and wrote 70 percent of Introduction section, 90 percent of Overall Description section, 100 percent of current Specific Requirements section.
- 10/29/16: Met with Jon Dodge at 2:30pm, discussed Requirements document specs. Submitted preliminary draft of Requirements document to Winters office.

1.4.3 Collin Dorsett

- This Week's Achievements
  - Updated Abstract following Dr. Li's recommendations
  - Finished initial draft of Requirements Document
  - Met with Jon Dodge (TA)
  - Created a Gantt Chart outlining the timeline of the project
- Setbacks
  - Need to reschedule meeting with Dr. Li due to illness
- Upcoming week's plans
  - Set up meeting with Dr. Li
  - Update Requirement Document

1.5 Week 6

1.5.1 Behnam Saeedi

- This Week's Achievements
  - Requirements document:
  - This document required us to get many of our definitions completed. The glossary will help us to explain our project better.
  - The glossary is completed and all the terms are explained. These terms include some of the core functionalities of our system such as probing and channels.
  - The document follows IEEE transaction and is approved and signed by our client
  - We sent out an email to keep track of project steps
  - group dynamics and inner hierarchy was formed with Connor Sedwick taking over group's communication management.
  - The portion responsibilities were selected.
  - Gantt chart chart was created and time-line of Gantt chart was adjusted to accommodate with some of the deadlines.
  - Graphical package started.
- Encountered Problems
  - Our meetings got canceled again do To client's schedule.
  - We had a hard time communicating with client, we had to go to his office and have a quick chat with him.
  - There are some miscommunication within the group and workload distribution for our document.
  - Connor Sedwick seems to getting a heavier load in tasks than all of us. I tried to increase my workload to compete with him and get level with amount of work he is doing.
  - Our third group member seems very disinterested in the project. Me and Connor are having a hard time communicating with him and this skews the workload towards us.

- Possible Demos
  - The requirement document is ready and rendered into PDF. It is ready to vie, the signed version is submitted at due date.
- Upcoming week's plans
  - Urgent group meeting for resolving Colin's lack of interest in the project.
  - Graphical package needs to be handled.
  - We need to talk to our client about graphical package.

1.5.2 Connor Sedwick

- This Week's Achievements
  - Requested team members read current requirements document and let me know about their preferred functional requirements to take ownership of. Edited Requirements document's Functional Requirements subsection with more functions/features. Changed document style to IEEEtran and modified attributes to achieve proper numerical sectioning. Requested Behnam or Collin contact Dr. Fuxin about scheduling a meeting for this week (Note: Behnam contacted Dr. Li and CC'ed Collin and me).
  - Continued editing Requirements Doc. Added bold face to Glossary terms to make them stand out. Attended writing workshop. Winters somewhat confirmed References can appear in first section of Requirements document. Gantt chart was cleared as acceptable. Talked to Dr. Fuxin about signing off on Requirements document. Dr. Li responded saying he is busy working on a project and could not / can not respond as a result. Need to take printed and finished copy to his office tomorrow for signature. Emailed Requirements document to Dr. Li. Received signed and confirmed copy.
- Upcoming week's plans
  - Divide up project pieces to team members.
  - Complete requirements document.
  - Split up portions of the project into smaller tasks.
  - Have each member read over document and weigh-in on thoughts.
  - Send preliminary document to Dr. Li to read over.
  - Submit hard and signed copy of requirements document to Room 2098 (the freezer).
  - Meet with Dr. Li. (Was unable to meet last week due to stakeholder falling ill.)

1.5.3 Collin Dorsett

- This Week's Achievements
  - Updated Requirements Document following Dr. Li's recommendations
  - Updated Requirements Document glossary
  - Updated Gantt Chart
  - Met with Jon Dodge (TA)
- Setbacks
  - Meeting with Dr. Li was pushed back do to scheduling conflicts
- Upcoming week's plans
  - Set up meeting with Dr. Li
  - Tech Review Document

1.6 Week 7

1.6.1 Behnam Saeedi

- This Week's Achievements
  - Requirments doecument was finished signed and submitted
  - a helper file was created in order to help with technical review
  - the technical review's topics were selected and each member is responsible for 3 of the topics:
  - Behnam Saeedi:
    - GUI choice
    - Multi - stage developments
    - Project release
  - Collin Dorsett:
    - Debugging options
    - Code commenting and index guides
    - Code flexibility
  - Connor Sedwick:
    - Variable handling
    - GUI representation
    - Code and module Abstraction
    - the technical review was written and reviews to be submitted on Monday
- Encountered Problems
  - Our client is not going to meet with us for another week. this is unfortunate since we do not have that much time to organize our project and some of our steps are time sensitive.
  - We are hoping his schedule will become less busy so we can meet with him.
- Possible Demos
  - The technical review would be finished and ready to submit soon
- Upcoming week's plans
  - the technical review needs to be finished by Monday
  - we need to continue on trying to communicate with all of the group members and client
  - we need to decide some of the specifications for our graphical package and finish it up.
  - handling the graphical package will help us focus on the code during the winter

1.6.2 Connor Sedwick

- This Week's Achievements
  - Began research for technical review document. Created Overleaf pages with templates for Ben and Collin to use for their reviews.
  - Completed tech review. Contacted group members to check on progress.

1.6.3 Collin Dorsett

- This Week's Achievements
  - Split up the Tech Review into topics for each member
  - Met with Jon Dodge (TA)
- Setbacks

  - Meeting with Dr. Li was pushed back do to scheduling conflicts

- Upcoming week's plans
  - Set up meeting with Dr. Li
  - Review Tech Review Document with Team
  - Turn in Tech Review Document
  - Begin Design Document

1.7 Week 8

1.7.1 Behnam Saeedi

- This Week's Achievements
  - Communicate with our client for a solid repeating meeting time for this and hopefully upcoming two terms.
  - Design document was started
  - Organization of .tex file was created
  - team started gathering required data fro the document
  - team made prezi accounts for the presentation
  - prepare for presentations
  - title
  - topics and items in order (keep two 3 or 4 sections)
  - Talk about problem
  - Talk about solution
  - GUI side
  - Show demo
  - video on how it works
  - mockup
  - Core
  - show mockup video
  - show how the code is created
  - mockup
  - talk about progress map and Gantt chart
  - repeat topics and items
  - Thank you page and references
  - graphical package was decided on and started to create all the required blocks and buttons
  - Meeting with TA:
  - Formatting of design document. Tech review and SRS IEEETrans for styling, OUTLINE IS UNIQUE! 1016
  - 2009 standard.
  - Content of design document: detail of all the concepts, what we envision, use mockups.
  - Topics of Design document : each write on the topic of tech report assignments. requirements that did not get addressed in tech review needs to be addressed here.
  - Long document. sections 3,4 and 5 are the most important sections
  - read separately
  - haggle which sections are relevant
  - Progress report presentation:
  - Practice giving presentation
  - code review
  - critical aspects of code
  - prepare for it ahead of time
  - abstract, recyclable and reusable
  - slides to guide the presentation
  - Meeting with our client:

  - what we have done so far:
  - Abstract
  - Problem statement
  - Requirements document
  - Technology review
  - graphics mockup
  - graphical icons and symbols
  - Gantt chart
  - Solid time and day for weekly meetings for the winter term
  - every other week + special meetings MWF and time tentative
  - Graphics package and visual design decisions
  - our client's restrictions on the icons, colors, items in menus
  - any specifications on the graphics package
  - Clear out ambiguities on the concept of "Layers"
  - input , output and gradient
  - Happens in same flow
  - avoid I/O between layers.
  - Hard deadlines he might have in mind
  - Concerns:
  - Meetings time
  - More feedback: it is our concern to make sure the project meets our client's expectations
  - student testing!

- Encountered Problems
  - Latex rendering problems. many files were missing from the package due to the fact that we installed minimum package.

- Possible Demos
  - Mockup for the GUI demo and Core python mockup are ready to show (videos)

- Upcoming week's plans
  - Meeting with the group for the document and presentation preparation
  - finish up the graphics package

1.7.2 Connor Sedwick

- This Week's Achievements
  - Met with Ben and Collin to proofread documents. Decided on mixing write ups in final paper to flow better. Took 7 hours. Final document was submitted. Contacted Dr. Li about meeting on Friday.
  - Ben has skeleton of info to include in design document written.
  - Class was canceled. Went to Kelley to work on Design Document.
  - Met with Dr. Li to discuss current state of project. Discussed issues with compile time bottleneck due to massive amount of data required. May need to revise requirements document. Also, will not treat layers as individual files due to issues with data flow. Due to data being on the average amount of gigabytes, we will not be outputting and inputting data as individual files.

- Upcoming week's plans
  - Meet with Dr. Li about graphics package
  - Submit Tech Review document
  - Begin work on Design document and presentation

1.7.3 Collin Dorsett

- This Week's Achievements
  - Met with Team to read through and edit Tech Review
  - Met with TA to discuss the Design Document
  - Started a rough draft for the Design Document
  - Met with Dr. Li to discuss the current state of the project and to double check our understanding of some requirements
- Upcoming week's plans
  - Design Document

1.8 Week 9

1.8.1 Behnam Saeedi

- This Week's Achievements
  - met with our client and talked about some of our concerns on the meetings and the project
  - we clarified some of the ambiguities about our project
  - we talked about setting up a solid day and time for weekly meeting with our client next week
  - the graphics package was decided and confirmed by the client
  - The writings on design document started
  - The GUI and python mockups for presentation were created
  - we worked on the power-point slides
- Encountered problems
  - no problems encountered
- Possible Demos
  - Now Technical review document available and graded.
  - Mockups ready for presentation
- Upcoming week's plans
  - finish the design document
  - film the presentation

1.8.2 Connor Sedwick

- This Week's Achievements
  - Decided to wait until after break.
- Upcoming week's plans
  - Write design document.
  - Schedule meeting time with Dr. Li.
  - Create presentation layout and script.

1.8.3 Collin Dorsett

- This Week's Achievements
  - Initialize Design Document
  - Set up meeting with Dr. Li
- Upcoming week's plans
  - Finalize Design Document
  - Begin planning for Progress Report

1.9 Week 10

1.9.1 Behnam Saeedi

- This Week's Achievements
  - Mockups finished and added
  - Design Document signed and submitted
  - Power points developed
  - Video produced
- Encountered Problems
  - No problems encountered in this week
- Possible Demos
  - Design Document
- Upcoming week's plans
  - No plans for the following week.
  - End of the term

1.9.2 Connor Sedwick

- This Week's Achievements
  - Created template on Overleaf for Software Design Document layout. Worked on Introduction Section.
  - Created diagrams for features to be added to Decomposition Description subsection in Software Design document. Added diagrams to graphics directory. Added diagrams to Decomposition Description subsection with captioning. Wrote System Overview.
  - Converted Ben's mockups of the User Interface design to .eps format. Added graphics to graphic directory. Added graphics as figures to document under User Interface Design section. Wrote part of Architectural Design subsection.
  - Reformatted sectioning of Software Design document. Met with Ben and Collin to write out Component Design section.
- Upcoming week's plans
  - Schedule meeting with Dr. Fuxin Li
  - Complete Software Design Document
  - Create presentation slides and talking points.

1.9.3 Collin Dorsett

- This Week's Achievements
  - Finalize Design Document
  - Set up meeting with Dr. Li
  - Start Progress Report
- Upcoming week's plans
  - Finalize Progress Report

2 WINTER

2.1 Prior to Week 1

2.1.1 Behnam Saeedi

- We review some of our documents and talked to our client.
- walked through the detail for some of the material for development
- reviews design specifications and requirements for blocks

2.1.2 Collin Dorsett

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2.2 Week 1

2.2.1 Behnam Saeedi

- This Week's Achievements
  - Blocks.py was initiated developed and refined .
  - Blocks.py contains a class called blocks. Every block in our WYSIWYG is a member of this class
  - Requirement of our development is each class must have its own test case to assure functionality of the program.
  - the test case will not be imported to the final project how ever it must be in the same file for test purposes
  - Block.py also contain its own test case, this test case covers creation, initialization and change of data in all of the members of the function
  - The channels.py was initiated. Were working on the simplest and most successful script for the development of our channels functionality that could meet all of the design requirements. (it is almost finished)
- Possible Demos
  - block.py is could be show cased
- Upcoming week's plans
  - Test case for channels
  - Implementation of probes.py
  - initiation of the main.py GUI

2.2.2 Connor Sedwick

- Upcoming week's plans
- Began creating classes for block objects, channels, and probes.

2.2.3 Collin Dorsett

- This Week's Achievements
  - Initialize Block.py and create test cases
- Setbacks

  - Unable to meet with Dr. Li due to schedule conflicts
- Upcoming week's plans
  - Meet with Dr. Li
  - Meet with TA

2.3 Week 2

2.3.1 Behnam Saeedi

- This Week's Achievements
  - worked and finished the module channels for GUI and functionality in code
  - The GUI is being worked on
  - the graphical package was uploaded to repository
  - Meeting resolution:
    - first meeting of the term
    - What have we accomplished
    - catch up where we left
      - Graphics look good
      - The code was presented
      - project seems to be going forwards smoothly
    - possible changes:
      - The Layers
      - Start testing around march
      - Python dictionary rather than ID (Maybe)
    - finish the dragging interface
    - meeting time:
    - 4:45 every Friday
    - every 3 weeks , more could be arranged next meeting is Feb 10th.
    - ARS:
      - Dragging
      - blocks
      - interactive GUI
- Possible Demos
  - We are working on the GUI how ever it is not demo-able yet
  - installer is demo-able
- Upcoming week's plans
  - Continue Development.

2.3.2 Connor Sedwick

- This Week's Achievements
- Began work on prototype for user-interface.
- Have some basic buttons up (Open, Save, Extract)
- Need to add menu to drag and drop objects
- Have been working to finish up the classes for the blocks, channels, and probes.
- Have created tests to check that the class items are accessible and modifiable.
- Scheduled meeting with TA for Friday 2:15pm
- Scheduled meeting with Dr. Fuxin Li for Friday 4:30pm

2.3.3 Collin Dorsett

- This Week's Achievements
  - Met with Dr. Li to discuss progress on the project
  - Currently working on the GUI (initial space and basic buttons created)
- Upcoming week's plans
  - Possibly meet with TA
  - Continue to work on GUI functionality

2.4 Week 3

2.4.1 Behnam Saeedi

- This Week's Achievements
  - Probes were implemented
  - GUI element is being designed
  - Working on drop down menu
- Possible Demos
  - Gui is partially demo-able, however it not what the final solution would be, it needs much more work and much more time to be finished
- Upcoming week's plans
  - Finish up more modules, incorporate the functional part of GUI into the graphical
  - resolve the team issues
  - Incorporate Collin in more tasks
  - More meetings per week
  - Talk about grades with Kevin
  - root out the grading issue

2.4.2 Connor Sedwick

- This Week's Achievements
  - Continuing to add controls to the user interface
  - Trying to get drop-down menus to appear correctly.
  - Need to look into different graphics package for buttons.
  - Need to begin practicing with drag-and-drop.
- Upcoming week's plans
  - Need to plan meeting with group members to discuss work apportionment.

2.4.3 Collin Dorsett

- This Week's Achievements
  - GUI being implemented
  - Met with TA to discuss progress
- Upcoming week's plans
  - Discuss core implementation
  - Meet with TA

2.5 Week 4

2.5.1 Behnam Saeedi

- This Week's Achievements
  - The GUI is coming together, the elements are present.
  - The group were met and guidelines for in group communication was asserted
  - Assignments were discussed
  - The group notified Kevin about the score which we received on the fall term
  - The structure of the core portion of the tool set was set
  - The implementation was discussed and needs to be clarified with the group members
  - The data structure used by the core is explained and ready to be implemented
- Possible Demos
  - Gui is demoable for the overall appearance
- Upcoming week's plans
  - Core modules need to be implemented
  - The core module has the following sections:
  - Parser
  - Converter
  - Scanner
  - Generator
  - Each one of these core python files need to be implemented and ready to be connected
  - the assignment needs to be started
  - Some of the images in the GUI seems corrupted, we need to look into it

2.5.2 Connor Sedwick

- This Week's Achievements
  - Able to get drop-down menus functioning, may need to re-think file formatting.
  - Met with Jon Dodge to discuss progress.
  - Talked to Kevin about previous term's grading.
- Difficulties
  - Cannot use vector graphics for some reason to create button icons.
  - Kivy does not seem to support vector graphics.
- Upcoming week's plans
  - en wants the drag and drop feature working for our meeting with Dr. Fuxin next week.
  - Will look up documentation for implementation.
  - We need Ben and Collin to set up meeting times to work during the week on the core code of our system.
  - Need tot meet with Kevin ASAP to discuss grades.

2.5.3 Collin Dorsett

- This Week's Achievements
  - Continued GUI implementation
  - Met with TA to discuss progress
  - Talked with Kevin to discuss fall grades
- Upcoming week's plans

  - GUI drag and drop feature
  - Begin core implementation
  - Meet with TA
  - Meet with Dr. Li

2.6 Week 5

2.6.1 Behnam Saeedi

- This Week's Achievements
  - The drag functionality done by Connor Sedwick
  - Python can now submit queries to the local DB for saving and parsing purposes. This will be used by the Core and the GUI
  - GUI uses it to store it and the Core uses it to generate the code
  - Meeting with the TA and Client was scheduled for Friday 2/10/2017
  - Meeting with TA resolution:
  - One note is an engineering document
  - (after table of content) Change logs to describe what changed and why it changed
  - Document log needs to be updated based on the flow of the project
  - Video portion:
  - Watch the old video
  - writes notes
  - what you did changed and replaced
  - Demo the content in the video
  - Point of alpha release: to show something is being made
  - Live demo for TA to see how things work
  - a lot of the video could be recycled
- Possible Demos
  - ./WYSIWYG
  - Local DB for table tracking and saving
- Upcoming week's plans
  - Higher order functions for the core source
  - The GUI needs more work force, we will be breaking it down so more of us can work on it
  - The core needs to be pushed
  - Parser table population before GUI launches
  - add the blocks to the GUI
  - Focus on documentation as well as development
  - Priority Table
  - Table of IDs
  - Table of priority -¿ execution table when it was parsed and the parameters were added
  - event handlers
  - NO DB, switch all DB to simple save files (using the parser)
  - look into process craft on Kivy

2.6.2 Connor Sedwick

- This Week's Achievements
  - Was able to get drag and drop working, but it seems to be confined to the box that it is declared within. (e.g. Having drag object declared in dropdown box only allows user to drag it around the dropdown box.)

  - Have found way to clean up .kv files for easier maintainability.
  - Working on button-press events.
- Issues
  - Drag and drop is finicky. (e.g. Having drag object declared in dropdown box only allows user to drag it around the dropdown box.)
- Upcoming week's plans
  - Meet with Kevin ASAP.
  - Meet with Dr. Fuxin.
  - Fix drag and drop issue.

2.6.3 Collin Dorsett

- This Week's Achievements
  - Met with Dr. Li to discuss progress and implementation of core files
  - GUI being implemented
  - Met with TA to discuss progress
  - GUI is demoable
- Setbacks
  - After meeting with Dr. Li, some of the implementation choices of the core needed to be changed, i.e., keeping a local database instead of utilizing SQL
- Upcoming week's plans
  - More work force on GUI
  - Continue to implement core
  - Meet with TA

2.7 Week 6

2.7.1 Behnam Saeedi

- This Week's Achievements
  - researching the compiler structure
  - looking for possible file handling solutions
  - looking for methods of parsing for the graphical user interface
  - worked on documentation
  - worked on the video
- Possible Demos
  - new video
  - new report
- Upcoming week's plans
  - pushing the GUI
  - The core needs to be looked into there are few problems that need to be over come

2.7.2 Connor Sedwick

- Completed our Progress Report
- Created OneNote document
- Recorded Winter Progress

2.7.3 Collin Dorsett

- This Week's Achievements
  - Created OneNote for documents and revisions
  - Created Midterm Progress Report
  - Created Presentation
  - Made revisions to documents
- Upcoming week's plans
  - Continue to implement core and GUI
  - Meet with TA

2.8 Week 7

2.8.1 Behnam Saeedi

- This Week's Achievements
  - looking into handles and triggers for the tokenizer
  - midterms and project week, did not have time to do much
  - meeting with john:
  - one member couldn't join due to exam
  - papers will be graded soon
  - one possible solution to core could be dagger algorithm
  - another could be a stack with backwards flow of channel
- Upcoming week's plans
  - work on core and GUI
  - we would like to have our alpha finished this term

2.8.2 Connor Sedwick

- Was unable to make progress on GUI due to conflicting projects and midterm preparation.

2.8.3 Collin Dorsett

- This Week's Achievements
  - Met with TA to discuss progress
- Setbacks
  - Not much progress on project due to midterms
- Upcoming week's plans
  - Continue to implement core and GUI
  - Meet with TA

2.9 Week 8

2.9.1 Behnam Saeedi

- This Week's Achievements

  - Work on Tokenizer
  - fix the block handles
  - Adding the testcase for dynamic generation of blocks in the screen based on their type.
  - dynamically generated blocks are movable in the field
  - figure out and Implement the lexer module.
  - Talked with the TA and got advice on projects, assignments and deliverables
  - furthermore, asked for TA's on the API on GUI and the Core
  - TA suggested that for finding order we use a scheme similar to Translators
  - Parser scheme was discussed
- Possible Demos
  - The Dynamic Dragables
- Upcoming week's plans
  - Set up the handles for lexer to tokenize
  - figure out the parser using the given tokens
  - Block value manipulation
  - Adding the block module to the interface
  - create list of present blocks
  - track their values

2.9.2 Connor Sedwick

- This Week's Achievements
  - Was able to get on-click block generation working
- Upcoming week's plans
  - Unable to meet with stakeholder due to meeting conflicts

2.9.3 Collin Dorsett

- This Week's Achievements
  - Met with TA to discuss progress and future assignments (poster/progress report)
- Setbacks
  - Due to schedule conflicts, we were unable to meet with Dr. Li
- Upcoming week's plans
  - Continue to implement core and GUI
  - Meet with TA

2.10 Week 9

2.10.1 Behnam Saeedi

- This Week's Achievements
  - Set up the handles for lexer to tokenize
  - figure out the parser using the given tokens
  - Block value manipulation
  - Adding the block module to the interface
  - create list of present blocks

  - track their values
  - debug set for presenting the list of present blocks
  - (this object will be passed to the lexer)

- Possible Demos
  - The Dynamic dragable blocks now have a dynamic data representation

- Upcoming week's plans
  - Next week is dead week and not much is expected to be done, though following tasks could be achieved
  - Parser set up in place and ready
  - generator generate simple python code for alpha test

2.10.2 Connor Sedwick

- This Week's Achievements
  - Implemented block generation into working prototype
  - Implemented different blocks into the GUI that are all generated depending on the user's selection.

- Notes
  - May need to rethink differentiation of blocks.
  - May need to use color to differentiate rather than shapes.
  - Need to consider buttons or fields to each block widget that allows user's to modify a block's attributes.
  - Possible idea is to create a field entry window that appears when the user clicks on a block and decides to change its attributes.

- Upcoming week's plans
  - Have Prof. Fuxin sign off on our progress report
  - Meet with Prof. Fuxin

2.10.3 Collin Dorsett

- This Week's Achievements
  - Met with TA to discuss progress and the poster
  - Made changes as needed to the progress report
  - Met with TA to discuss progress and following term
  - Poster draft completed

- Setbacks
  - We were able to meet with Dr. Li and have him sign off the progress report

- Upcoming week's plans
  - Dead Week, most likely not much progress will be made
  - Continue to implement core and GUI as needed
  - Finals Week, most likely not much progress will be made
  - Presentation
  - Meet with Dr. Li for a quick update before end of term

3 SPRING

3.1 Week 1

3.1.1 Behnam Saeedi

- This Week's Achievements
  - Get the team to get here and get an update on the status of the project
  - Speak about performance, meeting times and boosting up the process
  - Get the assignments and due dates and add them to group calender
  - set up important tasks to do and assign responsibility for each member
- Upcoming week's plans
  - Get the project development back on track
  - focus on a specific part of the project (the core section)

3.1.2 Connor Sedwick

- This Week's Achievements
  - Have channels being drawn between blocks in GUI
- Note
  - May need to shift focus from GUI to back-end
  - Also considering changing organization of files
- Upcoming week's plans
  - Meet with Prof. Fuxin

3.1.3 Collin Dorsett

- This Week's Achievements
  - Met with TA to discuss poster and future assignments
  - Group meeting to discuss priorities of project
- Setbacks
  - We were unable to meet with Dr. Li due to schedule conflicts
- Upcoming week's plans
  - Meet with Dr. Li
  - Meet with TA
  - Finalize second poster draft
  - Shift work focus to Core implementation

3.2 Week 2

3.2.1 Behnam Saeedi

- This Week's Achievements
  - Met and worked on the poster
  - met with our TA for week 1

  - We did not manage to meet with our client
  - we contacted him and asked for a time to meet, he said he will get back to us for a good meeting time
  - Still hadn't got back to us
  - Missed a TA meeting, tried to attend a different time slot and contacted the TA, with his approval We showed up to a different section but he did not show up this time!
  - Got together to work on the poster second draft
- Possible Demos
  - The second draft of the poster
- Upcoming week's plans
  - Get together to code in a session to crank out the project back on the track
  - email Client about the meeting time again
  - talk to TA if the client did not respond

3.2.2 Connor Sedwick

- This Week's Achievements
  - Began work to make file system for software fit MVC design.
- Note
  - Have shifted focus from GUI to back-end.
  - Beginning work on file creation with block data field manipulation.
  - Beginning work on connecting Tensorflow libraries to software.
- Upcoming week's plans
  - Meet with Prof. Fuxin

3.2.3 Collin Dorsett

- This Week's Achievements
  - Met with TA
  - Worked on the second poster draft
- Setbacks
  - We were unable to meet with Dr. Li
- Upcoming week's plans
  - Meet with Dr. Li
  - Meet with TA
  - Shift work focus to Core implementation

3.3 Week 3

3.3.1 Behnam Saeedi

- This Week's Achievements
  - We manage to finish up some of the core codes for injection on the code generation section
  - The generator will now use those to replace the proper syntax and append them to the string
  - that string then will be put into a file and turned into a .py file

  - a file I/O was designed to accommodate with that

- Upcoming week's plans
  - Hopefully this week we will test out our first hello world program
  - after that we will add the required libraries to the python code
  - We might be able to reach our final product by code freeze

3.3.2 Connor Sedwick

- This Week's Achievements
  - Have gotten templates written for our parser to use when interpreting blocks.
  - Have developed fileIO for reading templates and writing syntax to file.
- Upcoming week's plans
  - Get Hello World demo working to demonstrate working product.
  - Get channels to draw and properly connect between two nodes.
  - Check that blocks connected by channels are in a stack.

3.3.3 Collin Dorsett

- This Week's Achievements
  - Met with TA
  - Initialize templates for the parser
  - Some progress on code generation
- Upcoming week's plans
  - Meet with Dr. Li
  - Meet with TA
  - Finish up some more work before the code freeze

3.4 Week 4

3.4.1 Behnam Saeedi

- This Week's Achievements
  - We had our tool generate its first ever hello world program
  - the template files were added
  - the generator is now hooked to GUI
  - now we need to advance channels and prepare for test
  - tensor-flow templates are being added
  - the extract button is now functional
  - variables are captured now
  - the code dynamically decides if there needs to ′ ″ ′ in the code for variables
- Possible Demos
  - hello world
- Upcoming week's plans
  - finish up tensor flow
  - get the channels to appear in the proper order
  - hook out put to the channels (i.value is decided based on channels)

3.4.2 Connor Sedwick

- This Week's Achievements
  - Have Hello World program working
  - Wrote progress report for client
  - Went to meeting with Kirsten about Poster
  - Finalized poster
  - Sent poster to client
  - Got approval
- Upcoming week's plans
  - Complete as much of the GUI by Monday
  - Submit poster to SMS.
  - Meet Sean Cross to do Wired article

3.4.3 Collin Dorsett

- This Week's Achievements
  - WIRED article
  - Met with TA
  - Additional template files added
  - Extract button is functional
  - Poster approved by Dr. Li
- Upcoming week's plans
  - Meet with Dr. Li
  - Meet with TA
  - More work on channel implementation
  - Poster submission

3.5 Week 5

3.5.1 Behnam Saeedi

- This Week's Achievements
  - Bugs were addressed:
  - The channels could not connect to multiple blocks
  - the method block is set up and now there is a variety
  - a new menu is introduced
  - by clicking on methods, the new menu will appear to allow selection
  - Some Tensorflow functions were implemented in the templates
  - Bugs with code generation were fixed
  - Size of the blocks was not optimal and there were several GUI features that were not very user friendly, they are fixed now
  - due to sickness could not attend the weekly meeting with the TA
- Possible Demos
  - The refurbished GUI
- Upcoming week's plans
  - The touch screen needs to be disabled
  - method blocks need to become functional
  - channels need to be able to move with the blocks
  - More Tensorflow functions need to become functional
  - the click interface has issues with touch based systems

3.5.2 Connor Sedwick

- This Week's Achievements
  - Got channel stack implementation working
  - Provided handler for text-input on blocks
  - Channels are being drawn between blocks
  - Files being generated from blocks and channels
- Upcoming week's plans
  - Finalize block implementation and input design
  - Record progress report
  - Implement TensorFlow import template

3.5.3 Collin Dorsett

- This Week's Achievements
  - Channel implementation is functional
  - Bug fixing
  - Changes to Block sizing
- Setbacks
  - We were unable to meet with our TA
- Upcoming week's plans
  - Meet with Dr. Li
  - Meet with TA
  - Importing TensorFlow functions

3.6 Week 6

3.6.1 Behnam Saeedi

- This Week's Achievements
  - The touch screen is disabled
  - method blocks are functional, they recursively generate and function
  - channels move with the blocks, not perfect but a beginning
  - Several Tensorflow functions were added, it is slowly taking shape
  - the click interface is reliable and working
- Possible Demos
  - the simple if, for and several Tensorflow functions could be tested
- Upcoming week's plans
  - Documentation needs to be addressed for the midterm
  - More Tensorflow functions need to be added
  - more bugs with the GUI need to be detected and handled
  - prepare for the expo
  - deploy the solution before expo

3.6.2 Connor Sedwick

- This Week's Achievements
  - Code is being generated through the GUI
  - We now have a debug text box appearing on the bottom of the GUI showing system errors
  - Report has been written and is being edited.
- Upcoming week's plans
  - Connect Methods
  - Get Lines to redraw
  - Complete Progress Report
  - Record video demo

3.6.3 Collin Dorsett

- This Week's Achievements
  - Met with TA
  - Channel bug fixing
  - Additional TensorFlow functions added
  - Functional method Blocks
- Upcoming week's plans
  - Prepare for Expo
  - Midterm progress report

3.7 Week 7

3.7.1 Behnam Saeedi

- This Week's Achievements
  - Documentation is addressed for the midterm
  - 123 more Tensorflow binary and unary functions are integrated
  - more bugs with the GUI are detected and handled
  - solution was deployed, GUI executing icons and user elements are in place
  - looking into some inconvenient design choices to make the user experience more seamless
  - expo!
- Possible Demos
  - Expo the system ill be demoed and tested
- Upcoming week's plans
  - Documentation and catchup with the client and the TA

3.7.2 Connor Sedwick

- This Week's Achievements
  - Completed demo for expo
  - Attended expo
  - Submitted progress report
- Note

  - Need to edit the formatting of a few block types
  - Work on getting machine learning demo up and working
- Upcoming week's plans
  - Meet with Prof. Fuxin to discuss progress on project.

3.7.3 Collin Dorsett

- This Week's Achievements
  - Engineering Expo
  - Midterm progress report
  - Bug fixing
- Possible Demos
  - Unable to meet with Dr. Li due to schedule conflicts
- Upcoming week's plans
  - Meet with TA

3.8 Week 8

3.8.1 Behnam Saeedi

- This Week's Achievements
  - The project at this point successfully satisfies all of the requirements that we had as described with minor issues with one of the requirements.
  - We are addressing the missing requirement and trying to fix it as soon as possible.
  - Our project fully supports the Tensorflow's described functions and we are thinking to visit our stakeholder for thanking him and demoing the project at its current state.
  - we are trying to address th miss understandings and any possible bad communication or bad representation we had
  - During this project we learned many things about ourselves, each other, project management and development.
  - This made use to have a better understanding of development process and several elements that goes into team dynamics.
  - some of the decisions we made were not necessarily perfect but it helped us to get were we are now. There are series of notes that were learned from this experience:
  - If we were to redo this project I would have told my self USE JAVASCRIPT!
  - During this project we learned many things about
    * project planning
    * documentation
    * team dynamics
    * communication
    * presentation

    - and time management
    - and many more group project skills
  - Perhaps the biggest and most important skill we learned was the interpersonal communication and how to appropriately attract others interest.
  - We learned that decision making requires a long and accurate foresight in order to assure good quality in final product.
  - These communication skills will help and guide us in removing ambiguities in future job space or projects.
  - I enjoyed the theoretical portion of the project and its transition to actual practice. Furthermore I really enjoyed some of documentations we did.
  - Some of the excess writing however started seeming excessive. (I'm not saying they are useless, I'm saying I was hoping the importance of it was explained to us).
  - I learned that there are diverse and different ways to approach problems. (this is before trying to solve it) just describing the problem in different ways sometimes helps with getting to answers.
  - If I was the client I would have been very happy with the project. We left the project in a good order and made it extremely easy for others to pick up and continue.
  - This project needs few minor changes at this point with the core and they are adding words to a list. However, I would recommend polishing the GUI.
- Possible Demos
  - We are ready to demo all of the features of our system to steak holder.
- Upcoming week's plans
  - The upcoming weeks will be dedicated to documentation and addressing the requirements.

3.8.2 Connor Sedwick

- This Week's Achievements
  - Probe blocks are spawning
  - TensorFlow functions are operational with software
- Note
  - Need to get layering functional
- Upcoming week's plans
  - Meet with Prof. Fuxin to discuss progress on project.
  - Do 3 short writing assignments
  - Begin work on final report
- Questions answered
  - **If you were to redo the project from Fall term, what would you tell yourself?**
  - I would tell myself to begin research on software earlier on for use in my project.
  - I would also begin experimenting on the necessary algorithms for the software.

  - Requirements would be less numerous.

  - **What's the biggest skill you've learned?**

  - The biggest skill I have learned is developing a GUI for Python code and I hope to apply my newfound skills towards app development.

  - **What skills do you see yourself using in the future?**

  - I can see myself working more on back-end algorithms in the future. More inclined to automate more processes and cut down on function/method size.

  - **What did you like about the project, and what did you not?**

  - I enjoyed the learning experience it gave me with interface development which is the focus of my degree.

  - I enjoyed putting together the technical documentation because it gave me the chance to exercise what I learned in the Technical writing class I had taken.

  - I did not enjoy the lack of updates on my team's current standing academically.

  - **What did you learn from your teammates?**

  - I learned from Ben that it is a good idea to automate as many processes as possible to avoid busy-work later on.

  - From Collin I learned some interesting and helpful ways to write technical papers.

  - **If you were the client for this project, would you be satisfied with the work done?**

  - I would be satisfied that the team had developed a working prototype software that allowed visual programming in Python and supports Machine Learning libraries.

  - **If your project were to be continued next year, what do you think needs to be working on?**

  - The organization of the code needs to be moved around and there could easily be more work done on the GUI.

  - I would consider adding a settings option that allowed the user to tailor the size of the widgets onscreen.

  - The dropdown for the methods option needs to be automated to allow users to update the listing with new libraries and display them for use.

3.8.3 Collin Dorsett

- This Week's Achievements
  - Met with TA to discuss Expo
  - Probe Block implementation
- Upcoming week's plans
  - Meet with TA
  - Meet with Dr. Li to discuss the project progress

- Questions
  - **If you were to redo the project from Fall term, what would you tell yourself?**
  - Definitely would have done some more research on various Python graphics libraries. One of our largest issues was working with the Kivy library, and use of another library/language, such as javascript, might have made the process much easier. Also I definitely should have taken a lighter course load so I could help more with the project overall.

  - **What's the biggest skill you've learned?**
  - The biggest skill I've learned is how to work on a program/project as part of a group. Having multiple members working on the same piece of code can be challenging, and I do think I need more experience in that particular area. However, this course was a nice insight on how group dynamics can affect the process of the project.

  - **What skills do you see yourself using in the future?**
  - I would like to gain some more experience working with a team on a project. It is rather difficult during college as other courses can take up a lot of your time, so I look forward to future projects after I graduate where I can solely focus on the project at hand.

  - **What did you like about the project, and what did you not?**
  - I did enjoy working with Python, as I haven't used it for many other projects, and it was nice to have others share their knowledge of how the language works. The one thing I did not like about the project (entirely my fault) was having other courses to worry about, which took a fair amount of time away from me being able to work on the project.

  - **What did you learn from you teammates?**
  - Both of my teammates have a very dedicated work ethic, despite having exceptionally busy schedules. I hope I can practice such work ethic myself in the future projects.

  - **If you were the client for this project, would you be satisfied with the work done?**
  - The project fulfills all of the requirements we laid out in Fall term, and while it may not look like the 'prettiest' program, it does do its job as intended.

  - **If your project were to be continued next year, what do you think needs to be working on?**
  - As it stands our project is almost fully complete, apart from some bugs and minor fixes. This main thing I think needs work is to have some form of user studies, as there are so many variables used to make the program run, it is quite difficult for our team to find/produce every single bug.