Priorities

1. ✅Stabilize 3.3. Risky changes will be delayed until the stream of issues settles down.
2. ✅Fix problems with Catalina. After 10.15 is out, new problems will be discovered. These need to be dealt with.
3. Core functionality improvements.
4. Nice-to-have new features

Core functionality

For the foreseeable future the highest priority is improving core functionality. In particular:
- Fixing long-standing deficiencies in existing systems.
- Add polish to new features added in 3.3.
- Improving throughput.
- Reducing latency.
- Reducing power usage.
- Catch up with Terminal.app where there are gaps.

Increase Throughput/Reduce Latency/Reduce Power+CPU Usage/Reduce Memory Usage

- Avoid excessive redraws when moving mouse in Metal.
    - https://gitlab.com/gnachman/iterm2/issues/7209
- ~~Draw deltas for small updates~~
    - ~~https://gitlab.com/gnachman/iterm2/issues/7209~~
- Add a fastpath for GPU renderer when expensive features (e.g., thin strokes for light text on dark backgrounds) are disabled.
- Seek and destroy latency. Build a harness to measure latency. Consider changing the legacy renderer to not use a scrollview, if that helps. Investigate using layers.
    - https://gitlab.com/gnachman/iterm2/issues/5922
    - See also the hacker news post for version 3.3, which had some useful comments.
- Move more work into GPU to shed CPU load.
- Reduce unnecessary main thread work when using GPU renderer, such as copying the colormap if it hasn't changed.
- Add a low-power mode that caps CPU usage at 100%
    - https://gitlab.com/gnachman/iterm2/issues/7209
    - https://gitlab.com/gnachman/iterm2/issues/7919
- Write a faster VT100 parser in C++

- Never read NSUserDefaults directly for performance reasons.
  - (jul 30, 2019 comment) https://gitlab.com/gnachman/iterm2/issues/7209
- Unlimited scrollback has unlimited problems. Limit it somehow.
  - https://gitlab.com/gnachman/iterm2/issues/7847
- Create new sessions optimistically so you can create a new tab instantly.
  - https://gitlab.com/gnachman/iterm2/issues/8590
- Turn on the Devanagari fix by default.
- Only resize visible sessions.
  - https://gitlab.com/gnachman/iterm2/issues/5395
- Search for more opportunities to improve session creation time.
  - https://gitlab.com/gnachman/iterm2/issues/7509

Deficiencies — Big

- RTL support.
  - https://gitlab.com/gnachman/iterm2/issues/1611
  - https://gitlab.com/gnachman/iterm2/issues/4361
- It's fiendishly difficult to update settings in many preferences at once. In general, it should be possible to multi-select many profiles and update settings in them. It's not obvious how status bar configuration (or triggers, smart selection rules, etc.) would work in such a world, though.
  - https://gitlab.com/gnachman/iterm2/issues/8002
  - https://gitlab.com/gnachman/iterm2/issues/7822
  - https://gitlab.com/gnachman/iterm2/issues/7498
- It's impossible to select text when the scrollback buffer is full and you've scrolled up in to history. There is a race between changing the visible rect of the document and drawing it, during which time the model changes. The solution is related to the plan for improve concurrency: mutations happen on a copy of the model, off the main thread. The main thread's copy must not change between the time it scrolls and when it is redrawn.

Catch-up with Terminal.app

- Improve marks, catch up with Terminal.app's bookmarks feature.
  - https://gitlab.com/gnachman/iterm2/issues/7549
- Clear to last mark
  - https://gitlab.com/gnachman/iterm2/issues/7343
  - https://gitlab.com/gnachman/iterm2/issues/5784
- Terminal compatibility preset is out of date.
  - https://gitlab.com/gnachman/iterm2/issues/6581
  - https://gitlab.com/gnachman/iterm2/issues/3753
- Option to make focused window opaque
  - https://gitlab.com/gnachman/iterm2/issues/5353
- Man pages in Help menu

- https://gitlab.com/gnachman/iterm2/issues/3020

Nice-to-have Features

- Add support for more control sequences. There are a bunch of useful control sequences that are not supported.
  - https://gitlab.com/gnachman/iterm2/issues/5604
  - https://gitlab.com/gnachman/iterm2/issues/1961
- Better support for ssh host address books. Right now users are expected to manage them through profiles, but profiles are way too heavyweight.
  - https://gitlab.com/gnachman/iterm2/issues/6836
- You should be able to tune your cursor's width and height. For example, to make a thicker _ cursor or a taller | cursor.
  - https://gitlab.com/gnachman/iterm2/issues/6389
- Copy mode needs some improvement. For example, to support the vim `f` command.
  - https://gitlab.com/gnachman/iterm2/issues/6385
- Pin tab like Chrome
  - https://gitlab.com/gnachman/iterm2/issues/2234
- It would be really useful to have a recoverable way of hiding history so you can focus on what you're doing and scroll without getting confused, but without losing what was in history.
  - https://gitlab.com/gnachman/iterm2/issues/7657
- It's hard to backup and restore your config because it's more than just user defaults now, including files in application support like dynamic profiles, scripts, command history, notes, etc.
  - https://gitlab.com/gnachman/iterm2/issues/8102

CLOSED

Deficiencies — Small

- ✅System window restoration doesn't work with full screen windows, is flaky, impossible to reason about, and is a source of lost user data. Build a homegrown replacement that is reliable.
  - https://gitlab.com/gnachman/iterm2/issues/6632
  - https://gitlab.com/gnachman/iterm2/issues/7909
  - https://gitlab.com/gnachman/iterm2/issues/7278
  - https://gitlab.com/gnachman/iterm2/issues/6189
  - https://gitlab.com/gnachman/iterm2/issues/5164
  - https://gitlab.com/gnachman/iterm2/issues/4667
  - https://gitlab.com/gnachman/iterm2/-/issues/8990
- ✅Tmux integration has weak support for variable-size windows. The tmux backend in recent versions is no longer an obstacle. The machinery for calculating sizes is based on the assumption that windows are all locked to the same size and must be updated.
  - https://gitlab.com/gnachman/iterm2/issues/7860
- ✅When restoring a dead session left in alternate screen mode, the restored session should not itself be in alternate screen mode. More generally, the way that history + alternate screen + resizing works is insanely complicated and could be simplified.
  - https://gitlab.com/gnachman/iterm2/issues/8125
- ✅Add an option to disable tab dragging. This is a constant source of frustration for some users.
  - https://gitlab.com/gnachman/iterm2/issues/8123
- ✅Unify URL escaping behavior. Too many different half-baked approaches. Do it once and do it right.
  - https://gitlab.com/gnachman/iterm2/issues/8119
- ✅The tab bar should be a titlebar accessory for regular/light/dark-theme windows with title bars when the tabbar is on top. Then the gradient would be consistent. This is hard to do because the complexity of managing the tabbar has spiraled out of control. First it will be necessary to refactor tabbar (and fake window title, shortcut label, etc.) into a well-contained and testable state machine.
  - https://gitlab.com/gnachman/iterm2/issues/8099
- ✅Auto command history has always been a prototype-level feature. It needs some polish to be usable.
  - Master bug: https://gitlab.com/gnachman/iterm2/issues/8083
  - ✅https://gitlab.com/gnachman/iterm2/issues/6162
  - ✅https://gitlab.com/gnachman/iterm2/issues/5076
  - ✅https://gitlab.com/gnachman/iterm2/issues/4723
  - ✅https://gitlab.com/gnachman/iterm2/issues/8659

- ○ Good ideas in this issue:
  - ■ ✅https://gitlab.com/gnachman/iterm2/issues/6887
- ✅Saved arrangements with divorced sessions don't remember which settings were overridden which makes future changes to the underlying profile ineffective. This should be fixed for new saved arrangement created in the future.
  - ○ https://gitlab.com/gnachman/iterm2/issues/7972
- ✅Improve new session creation performance. Instead of creating a new file descriptor server for each job, have a single multiserver that can (hopefully) fork and exec more quickly.
  - ○ https://gitlab.com/gnachman/iterm2/issues/7468
- ✅Revert the commit to bootstrap jobs into the aqua session. It causes a lot of subtle problems. Instead, kill subprocesses when the user logs out. This requires multiserver [see previous item].
  - ○ https://gitlab.com/gnachman/iterm2/issues/7947
  - ○ https://gitlab.com/gnachman/iterm2/issues/7654
  - ○ https://gitlab.com/gnachman/iterm2/issues/4147
- ✅Show number of matches in Find panel
  - ○ https://gitlab.com/gnachman/iterm2/issues/4578
- ✅Smart selection and semantic history "run command" is a mess because it doesn't go through the user's shell so they don't have your path. I think you don't always get to see stderr, either, although that's now possible with accessory windows.
  - ○ https://gitlab.com/gnachman/iterm2/issues/7765
- 👎Trim whitespace from command history.
  - ○ https://gitlab.com/gnachman/iterm2/issues/7664
- ✅Natively render more kinds of blocks.
  - ○ https://gitlab.com/gnachman/iterm2/issues/6644
- ✅Users want log files without control sequences. This requires some kind of postprocessing magic.
  - ○ https://gitlab.com/gnachman/iterm2/issues/6597
- ✅You should be able to change window styles for existing windows.
  - ○ https://gitlab.com/gnachman/iterm2/issues/6466
- ✅Exposé all tabs is useless because it's so slow. Fix it or kill it. [edbce1f]
- ✅Captured output needs love. It's hard to read, and needs a way of marking an item complete. And the navigation is kinda clunky.
  - ○ https://gitlab.com/gnachman/iterm2/issues/5418
- ✅Make it possible to rename a saved arrangement
  - ○ https://gitlab.com/gnachman/iterm2/issues/4627
- ✅Better job name detection
  - ○ https://gitlab.com/gnachman/iterm2/issues/4214
- ✅Selection does not use absolute line numbers so it can get confused when text scrolls off.
  - ○ https://gitlab.com/gnachman/iterm2/issues/8237

- ✅Make adjustable margins a first-class citizen. Users love adjusting margins. Currently it's a hack in advanced prefs.
  - https://gitlab.com/gnachman/iterm2/issues/3571
- ✅ Bump SDA version to at least 216 to fix emacs modifyOtherKeys support.

Polish for 3.3 Features

- ✅Various improvements related to building an IDE. See issues referencing https://gitlab.com/gnachman/iterm2/issues/8245
- ✅Make it possible to set a "max size" for some status bar components.
  - https://gitlab.com/gnachman/iterm2/issues/8207
- ✅Disable touchbar ESC key mitigations when an external keyboard is in use.
  - https://gitlab.com/gnachman/iterm2/issues/8181
- ✅The "Actions" concept was added to the toolbelt and status bar. It would be useful to add a global notion of actions that can be accessed through Open Quickly. Same for Snippets.
  - https://gitlab.com/gnachman/iterm2/issues/8193
  - https://gitlab.com/gnachman/iterm2/issues/8106
- ✅Make more efficient use of space when there's a tabbar icon and a hidden-by-default close button
  - https://gitlab.com/gnachman/iterm2/issues/7990
- ✅Separate light/dark mode color schemes
  - https://gitlab.com/gnachman/iterm2/issues/7943
- ✅Quick way to open triggers panel from status bar.
  - https://gitlab.com/gnachman/iterm2/issues/5752
- ✅ Allow passing variables to coprocesses.
  - https://gitlab.com/gnachman/iterm2/issues/6649
- ✅ Add session size title component.
  - https://gitlab.com/gnachman/iterm2/issues/6524
- ✅ Make more UI fields use fixed-width fonts
  - https://gitlab.com/gnachman/iterm2/issues/6494
- ✅ You should be able to easily add selected text to the actions tool.
  - https://gitlab.com/gnachman/iterm2/issues/5386
- ✅ Trigger action to set user variable
  - https://gitlab.com/gnachman/iterm2/issues/4254
- ✅ Add support for manipulating annotations to the Scripting APIs.
  - https://gitlab.com/gnachman/iterm2/issues/8111
- ✅ Add support for custom menu items from scripts. As a side note, it would also be useful to customize various context menus.
  - https://gitlab.com/gnachman/iterm2/issues/7350

- ✅ Richer tab titles. It would be nice to use bold and have an optional second line of text, especially for custom title providers. It would also be nice to get an indication of whether a job terminated successfully or with an error when shell integration is in use.
    - https://gitlab.com/gnachman/iterm2/issues/6850

Nice-to-have Features

- ✅Modify selection with shift+arrow keys just after making a selection.
    - https://gitlab.com/gnachman/iterm2/issues/7122
    - https://gitlab.com/gnachman/iterm2/issues/4482