## **ERIC BAILEY**

# DOTFILES

## Contents

```
Machines
                5
    NiXPS
                5
        NixOS\ configuration
                               5
        home\mbox{-}manager\ configuration
                                      8
    SRUXPS
                  10
        NixOS\ configuration
                               10
        home-manager configuration
                                      14
Modules
               19
    Common
                  19
    Packages
                  20
    Location
                 22
    NixOS
               24
                27
    Darwin
Software\ configuration
                               31
    Bash
              31
    bat
           31
    Browserpass
                     32
    bugwarrior
                   32
    direnv
               33
    Emacs
               34
        Init File
                    36
    Firefox
                40
            41
    fish
        Fish abbreviations
                             42
```

```
fzf
      50
Git
       51
GPG
        56
htop
       56
i\beta
     56
i\Im status
          60
jq
     61
man 62
nixpkgs
         63
rebar 3
         63
Taskwarrior 63
   Config
            63
   on-exit Git hook
                    66
```

Glossary 69

Acronyms 71

Bibliography 73

## Machines

### NiXPS

```
NixOS configuration
The NiXPS configuration is an expression that takes, at least,
config, lib, and pkgs.
\langle machines/nixps/configuration.nix 1 \rangle \equiv
   { config, lib, pkgs, ... }:
     username = "yurrriq";
   in
      \langle Import\ hardware\ config\ and\ modules\ 2 \rangle
      \langle Set \ the \ location \ to \ MSP \ 3 \rangle
      \langle Blacklist \ a \ few \ kernel \ modules \ 4 \rangle
      ⟨Configure the LUKS device 5⟩
      ⟨Configure the environment 6⟩
      ⟨Configure the file systems 7⟩
      ⟨Tweak hardware config 8⟩
      ⟨Configure Bluetooth 9⟩
      ⟨Configure PulseAudio and OpenGL 10⟩
      \langle Configure\ home-manager\ 11 \rangle
      \langle Configure\ networking\ 12 \rangle
      \langle Configure\ Nix\ 13 \rangle
      \langle Configure\ overlays\ 14 \rangle
      \langle Configure \ sudo \ 15 \rangle
      \langle Configure \ X \ Server \ 16 \rangle
      \langle Configure \ user \ 17 \rangle
   }
   Use the community-curated optimizations for XPS 15 9560, the
generated hardware config, my custom modules, and the home-
manager module.
```

(1)

 $\langle Import\ hardware\ config\ and\ modules\ 2\rangle \equiv$ 

./hardware-configuration.nix

../../modules/common.nix
../../modules/location.nix
../../modules/nixos.nix
../../modules/packages.nix
<home-manager/nixos>

<nixos-hardware/dell/xps/15-9560/intel>
<nixos-hardware/common/pc/laptop/ssd>

imports = [

../../nix

];

```
Configure the module.
                                                                                         FIXME
\langle Set \ the \ location \ to \ MSP \ 3 \rangle \equiv
                                                                               (1)
  airportCode = "MSP";
\langle Blacklist\ a\ few\ kernel\ modules\ 4 \rangle \equiv
                                                                               (1)
  boot.blacklistedKernelModules = [ "nouveau" "nvidia" "psmouse" ];
   Configure the LUKS^1 devices.
\langle \mathit{Configure the LUKS device 5} \rangle \equiv
                                                                               (1)
  boot.initrd.luks.devices.root.device = "/dev/nvmeθn1p2";
\langle Configure \ the \ environment \ 6 \rangle \equiv
                                                                               (1)
  environment.homeBinInPath = true;
  environment.pathsToLink = [
     "/lib/aspell"
     "/share/emacs/site-lisp"
     "/share/fish"
  ];
\langle \mathit{Configure the file systems 7} \rangle \equiv
                                                                               (1)
  fileSystems."/" = {
     device = "/dev/disk/by-uuid/024a1168-9949-4cb2-bbd1-4b19a9d49ef2";
     fsType = "ext4";
  };
  fileSystems."/boot" = {
     device = "/dev/disk/by-uuid/7574-B246";
     fsType = "vfat";
  };
  fileSystems."/var/lib/docker/plugins" = {
     device = "/var/lib/docker/plugins";
     fsType = "none";
     options = [ "bind" ];
  };
  fileSystems."/var/lib/docker/overlay2" = {
     device = "/var/lib/docker/overlay2";
     fsType = "none";
     options = [ "bind" ];
  };
                                                                                         Figure out wtf is going on here
   NixOS/nixpkgs#24711<sup>2</sup>
                                                                                        <sup>2</sup> https://github.com/NixOS/nixpkgs/
                                                                                        issues/24711
\langle \mathit{Tweak\ hardware\ config\ 8} \rangle {\equiv}
                                                                               (1)
  hardware.bumblebee.enable = false;
  hardware.nvidiaOptimus.disable = false;
```

```
hardware.bumblebee.enable = true;
hardware.bumblebee.connectDisplay = true;
hardware.bumblebee.pmMethod = "bbswitch";
hardware.opengl.driSupport32Bit = true;
hardware.nvidia = {
  modesetting.enable = true;
  optimus_prime = {
    enable = true;
    nvidiaBusId = "PCI:1:0:0";
    intelBusId = "PCI:0:2:0";
 };
}:
\langle Configure\ Bluetooth\ 9 \rangle \equiv
                                                                           (1)
  services.blueman.enable = true;
  hardware.bluetooth = {
     enable = true;
     config = {
       General = {
         Enable = "Source, Sink, Media, Socket";
       };
    };
  };
   Tweak PulseAudio and OpenGL settings for Steam.
\langle Configure\ PulseAudio\ and\ OpenGL\ 10 \rangle \equiv
                                                                           (1)
  hardware.pulseaudio.support32Bit = true;
  hardware.opengl.driSupport32Bit = true;
\langle Configure\ home-manager\ 11 \rangle \equiv
                                                                           (1)
  home-manager.useUserPackages = true;
  home-manager.users."${username}" = args:
     import ./home.nix (args // { inherit pkgs; });
\langle Configure\ networking\ 12 \rangle \equiv
                                                                           (1)
  networking.hostName = "nixps";
\langle Configure\ Nix\ 13 \rangle \equiv
                                                                           (1)
  nix = {
    buildCores = 8;
    nixPath = [
       "nixos-config=/etc/nixos/configuration.nix"
     ];
     trustedUsers = [ "root" username ];
  };
\langle Configure\ overlays\ 14 \rangle \equiv
                                                                           (1)
  nixpkgs.overlays = with (import <nurpkgs> { }).overlays; [
    nur
     engraving
     git
     node
  ];
```

```
\langle Configure \ sudo \ 15 \rangle \equiv
                                                                             (1)
  security.sudo = {
     enable = true;
     extraConfig = "
       ${username} ALL=(ALL) NOPASSWD: ALL
  };
\langle Configure\ X\ Server\ 16 \rangle \equiv
                                                                             (1)
  services.xserver = {
    displayManager.autoLogin = {
       enable = true;
       user = username;
    };
     dpi = 180;
  };
\langle \mathit{Configure\ user\ 17} \rangle \equiv
                                                                             (1)
  users.mutableUsers = false;
  users.users."${username}" = {
     name = username;
    hashedPassword = lib.fileContents (./. + "/secrets/${username}.hashedPassword");
     group = "users";
     extraGroups = [
       "audio"
       "disk"
       "docker"
       "http"
       "networkmanager"
       "systemd-journal"
       "video"
       "wheel"
     ];
    createHome = true;
    uid = 1000;
    home = "/home/${username}";
     shell = "/etc/profiles/per-user/${username}/bin/fish";
  };
home-manager configuration
\langle machines/nixps/home.nix \ 18 \rangle \equiv
  { lib, pkgs, ... }:
  let
     nixpkgs-unstable = import (import ../../nix/sources.nix).nixpkgs-unstable {
       config.allowUnfree = true;
     };
  in
     ⟨Import some modules 19⟩
     \langle Configure \ account \ 20 \rangle
     \langle Add \ some \ more \ user \ packages \ 21 \rangle
     _module.args.pkgs = lib.mkForce pkgs;
```

```
\langle Import \ some \ modules \ 19 \rangle \equiv
                                                                             (18)
  imports = [
     ../../config/bat.nix
     ../../config/browserpass.nix
     ../../config/direnv.nix
     ../../config/emacs
     ../../config/firefox.nix
     ../../config/fish
     ../../config/fzf.nix
     ../../config/git
     ../../config/gpg.nix
     ../../config/htop.nix
     ../../config/jq.nix
     ../../config/kitty.nix
     ../../config/man.nix
     ../../config/nixpkgs
     ../../config/password-store.nix
     ../../config/rebar3.nix
     ../../config/starship.nix
     ../../config/taskwarrior
     ../../config/xmonad
  ];
\langle \mathit{Configure\ account\ 20} \rangle \equiv
                                                                             (18)
  accounts.email.accounts.primary = {
     address = "eric@ericb.me";
     gpg.key = "F88372B24A806FF23BCB3A4E2DDDF8606958B3F9";
    primary = true;
     realName = "Eric Bailey";
  };
\langle Add \ some \ more \ user \ packages \ 21 \rangle \equiv
                                                                        (18) 22 \triangleright
  home.packages = with pkgs; [
\langle Add \ some \ more \ user \ packages \ 21 \rangle + \equiv
                                                                  (18) ⊲21 23⊳
     clementine
     dolphin
     dunst
     fd
     libnotify
     lm_sensors
     lorri
     mtr
    nfs-utils
     openscad
     paper-icon-theme
     pavucontrol
     powertop
     рν
     reaper
     steam
     tellico
     wirelesstools
   Install Tomb<sup>3</sup> and related packages.
                                                                                       3 https://www.dyne.org/software/
                                                                                       tomb/
\langle Add \ some \ more \ user \ packages \ 21 \rangle + \equiv
                                                                  (18) ⊲22 24⊳
     file
     lsof
     tomb
```

}

```
\langle Add \ some \ more \ user \ packages \ 21 \rangle + \equiv
                                                                                  (18) ⊲23 25⊳
      nixpkgs-unstable.zoom-us
\langle Add \ some \ more \ user \ packages \ 21 \rangle + \equiv
                                                                                  (18) ⊲ 24 26 ⊳
      appimage-run
\langle Add \ some \ more \ user \ packages \ 21 \rangle + \equiv
                                                                                         (18) \triangleleft 25
   ];
SRUXPS
NixOS configuration
The SRUXPS configuration is an expression that takes, at least,
config, lib, and pkgs.
\langle machines/sruxps/configuration.nix 27 \rangle \equiv
   { config, lib, pkgs, ... }:
      username = "e.bailey";
   in
   {
      (Import hardware config and modules 28)
      \langle Set\ the\ location\ to\ MSP\ 29 \rangle
      \langle Configure \ the \ LUKS \ devices \ 30 \rangle
      \langle Configure\ vm.swappiness\ 31 \rangle
      \langle Add \ the \ coretemp \ kernel \ module \ 32 \rangle
      \langle Link\ some\ extra\ paths\ 33 \rangle
      \langle \mathit{Configure the file systems 34} \rangle
      ⟨Configure Bluetooth 36⟩
      ⟨Configure home-manager 37⟩
      \langle Configure\ networking\ 38 \rangle
      \langle Configure\ Nix\ 39 \rangle
      \langle \mathit{Configure\ overlays\ 40} \rangle
      ⟨Configure sudo 41⟩
      \langle Configure\ services\ 42 \rangle
      \langle Configure \ user \ 43 \rangle
```

Import the hardware config and other Nix modules.

```
\langle Import\ hardware\ config\ and\ modules\ 28 \rangle \equiv
                                                                           (27)
  imports = [
     <nixos-hardware/dell/xps/13-9380>
     ./hardware-configuration.nix
     ../../nix
     ../../modules/common.nix
     ../../modules/location.nix
     ../../modules/nixos.nix
     ../../modules/packages.nix
     <home-manager/nixos>
  ];
                                                                                      Describe the location module
\langle Set \ the \ location \ to \ MSP \ 29 \rangle \equiv
                                                                           (27)
  airportCode = "MSP";
   Configure the LUKS devices.
\langle Configure \ the \ LUKS \ devices \ 30 \rangle \equiv
                                                                           (27)
  boot.initrd.luks.devices = {
     cryptkey.device = "/dev/disk/by-uuid/603b64c6-8544-4b43-9b6a-7d8a08091514";
     cryptroot = {
       device = "/dev/disk/by-uuid/c4e26a93-c0c9-4680-bb79-8c0ca47df96c";
       keyFile = "/dev/mapper/cryptkey";
     };
     cryptswap = {
       device = "/dev/disk/by-uuid/565c0358-110e-4279-ba59-619cb2cc1ebf";
       keyFile = "/dev/mapper/cryptkey";
    };
  };
   https://docs.oracle.com/en/operating-systems/oracle-linux/
7/admin/section_h4v_3yt_tr.html
\langle Configure\ vm.swappiness\ 31 \rangle \equiv
                                                                           (27)
  boot.kernel.sysctl = {
     "vm.swappiness" = 1;
  };
\langle Add \ the \ coretemp \ kernel \ module \ 32 \rangle \equiv
                                                                           (27)
  boot.kernelModules = [
     "coretemp"
  ];
\langle Link \ some \ extra \ paths \ 33 \rangle \equiv
                                                                           (27)
  environment.homeBinInPath = true;
  environment.pathsToLink = [
     "/lib/aspell"
     "/share/emacs/site-lisp"
     "/share/fish"
     # FIXME: "/share/icons"
  ];
```

btrfs clean boot?

```
\langle Configure \ the \ file \ systems \ 34 \rangle \equiv
                                                                  (27) 35⊳
  fileSystems."/" = {
    device = "/dev/disk/by-uuid/71cfcb8a-13a9-49f0-b034-a9c8841be07b";
    fsType = "btrfs";
    options = [ "subvol=@" "rw" "noatime" "compress=zstd" "ssd" "space_cache" ];
  };
  fileSystems."/home" = {
    device = "/dev/disk/by-uuid/71cfcb8a-13a9-49f0-b034-a9c8841be07b";
    fsType = "btrfs";
    options = [ "subvol=@home" "rw" "noatime" "compress=zstd" "ssd" "space_cache" ];
  };
  fileSystems."/nix" = {
    device = "/dev/disk/by-uuid/71cfcb8a-13a9-49f0-b034-a9c8841be07b";
    fsType = "btrfs";
    options = [ "subvol=@nix" "rw" "noatime" "compress=zstd" "ssd" "space_cache" ];
  };
  fileSystems."/var" = {
    device = "/dev/disk/by-uuid/71cfcb8a-13a9-49f0-b034-a9c8841be07b";
    fsType = "btrfs";
    options = [ "subvol=@var" "rw" "noatime" "compress=zstd" "ssd" "space_cache" ];
  };
  fileSystems."/boot" = {
    device = "/dev/disk/by-uuid/54D0-C859";
    fsType = "vfat";
  };
\langle Configure \ the \ file \ systems \ 34 \rangle + \equiv
                                                                  (27) \triangleleft 34
  fileSystems."/mnt/music" = {
    device = "192.168.1.147:/volume1/homes/eric/music";
    fsType = "nfs";
    options = [ "noatime" "noauto" "rw" "x-systemd.automount" ];
  };
\langle Configure \ Bluetooth \ 36 \rangle \equiv
                                                                       (27)
  hardware.bluetooth = {
    enable = true;
    config = {
      General = {
        Enable = "Source, Sink, Media, Socket";
      };
    };
  };
\langle Configure\ home-manager\ 37 \rangle \equiv
                                                                       (27)
  home-manager.useUserPackages = true;
  home-manager.users."${username}" = args:
    import ./home.nix (args // { inherit pkgs; });
\langle Configure\ networking\ 38 \rangle \equiv
                                                                       (27)
  networking.hostName = "MSP-EBAILEY01";
  networking.interfaces.wlp1s0.useDHCP = true;
  networking.useDHCP = false; # NOTE: Deprecated, so set it false.
```

```
\langle Configure\ Nix\ 39 \rangle \equiv
                                                                         (27)
  nix = {
    nixPath = [
       "nixos-config=/etc/nixos/configuration.nix"
       "nixpkgs-overlays=/etc/nixos/overlays"
    ];
    trustedUsers = [ "root" username ];
  };
\langle Configure \ overlays \ 40 \rangle \equiv
                                                                         (27)
  nixpkgs.overlays =
    let
       path = <nixpkgs-overlays>;
    in
    with builtins;
    map
       (n: import (path + ("/" + n)))
         filter
           (
              n: match ".*\\.nix" n \neq null
              || pathExists (path + ("/" + n + "/default.nix"))
           (attrNames (readDir path))
       )
    ++ (
       with (import <nurpkgs> { }).overlays; [
         nur
         git
         node
       ]
    );
\langle Configure \ sudo \ 41 \rangle \equiv
                                                                         (27)
  security.sudo = {
    enable = true;
    extraConfig = "
       ${username} ALL=(ALL) NOPASSWD: ALL
  };
\langle Configure \ services \ 42 \rangle \equiv
                                                                         (27)
  services.blueman.enable = true;
  services.fwupd.enable = true;
  # TODO: services.lorri.enable = true;
  services.tlp.enable = true;
  services.xserver.displayManager.autoLogin = {
    enable = true;
    user = username;
  };
  services.xserver.monitorSection = "
    DisplaySize 406 228
```

```
\langle Configure \ user \ 43 \rangle \equiv
                                                                         (27)
  users.mutableUsers = false;
  users.users."${username}" = {
    name = username;
    hashedPassword = lib.fileContents (./. + "/secrets/${username}.hashedPassword");
    group = "users";
    extraGroups = [
       "audio"
       "disk"
       "docker"
       "http"
       "networkmanager"
       "systemd-journal"
       "video"
       "wheel"
    ];
    createHome = true;
    uid = 1001;
    home = "/home/${username}";
    shell = "/etc/profiles/per-user/${username}/bin/fish";
  };
home-manager configuration
\langle machines/sruxps/home.nix \ 44 \rangle \equiv
  { lib, pkgs, ... }:
  let
    nixpkgs-unstable = import (import ../../nix/sources.nix).nixpkgs-unstable {
       config.allowUnfree = true;
    };
  in
  {
    \langle Import\ various\ program\ configs\ 45 \rangle
    ⟨Configure the primary email account 46⟩
    \langle Install\ some\ user\ packages\ 47 \rangle
    _module.args.pkgs = lib.mkForce pkgs;
  }
```

```
\langle Import\ various\ program\ configs\ 45 \rangle \equiv
                                                                            (44)
  imports = [
     ../../config/bash.nix
     ../../config/bat.nix
     ../../config/browserpass.nix
     ../../config/bugwarrior.nix
     ../../config/direnv.nix
     ../../config/dunst.nix
     ../../config/emacs
     ../../config/firefox.nix
     ../../config/fish
     ../../config/fzf.nix
     ../../config/git
     ../../config/gpg.nix
     ../../config/htop.nix
    # ../../config/i3
     ../../config/jq.nix
     ../../config/kitty.nix
     ../../config/man.nix
     ../../config/nixpkgs
     ../../config/password-store.nix
     ../../config/rebar3.nix
     ../../config/starship.nix
     ../../config/taskwarrior
     ../../config/xmonad
  ];
                                                                                       Configure Vim
\langle Configure \ the \ primary \ email \ account \ 46 \rangle \equiv
                                                                            (44)
  accounts.email.accounts.primary = {
    address = "e.bailey@sportradar.com";
    gpg.key = "EFD6F1EDC84D2FA935E38570462054AB8B682702";
    primary = true;
    realName = "Eric Bailey";
  };
\langle Install\ some\ user\ packages\ 47 \rangle \equiv
                                                                       (44) 48⊳
  home.packages = with pkgs; (
    Γ
       aws-iam-authenticator
       ec2instanceconnectcli
\langle Install\ some\ user\ packages\ 47 \rangle + \equiv
                                                                 (44) \triangleleft 47 \ 49 \triangleright
       clac
       dolphin
       lorri
       mtr
       progress
  Clementine<sup>4</sup> is a great music player.
                                                                                      4 https://www.clementine-player.
                                                                                      org/
\langle Install\ some\ user\ packages\ 47 \rangle + \equiv
                                                                 (44) ⊲48 51⊳
       clementine # FIXME: Unfree
  I haven't used Dhall in a while, but it's still interesting.
⟨ * 50⟩≡
                                                                            56 ⊳
       dhall
       dhall-json
```

```
I might need Docker Compose<sup>5</sup> again someday, but not lately.
                                                                                                5 https://docs.docker.com/compose/
\langle Install\ some\ user\ packages\ 47 \rangle + \equiv
                                                                         (44) \triangleleft 49 52 \triangleright
        docker-compose
\langle Install\ some\ user\ packages\ 47 \rangle + \equiv
                                                                         (44) ⊲51 53⊳
   iw^6 is useful for troubleshooting wireless issues, like in Trondheim.
                                                                                                 6 https://wireless.wiki.kernel.org/
                                                                                                 en/users/documentation/iw
\langle Install\ some\ user\ packages\ 47 \rangle + \equiv
                                                                          (44) ⊲52 54⊳
        jdk
   https://github.com/Azure/kubelogin
\langle Install\ some\ user\ packages\ 47 \rangle + \equiv
                                                                         (44) ⊲53 55⊳
        nixpkgs-unstable.kubectx
        kubelogin
        k9s
        stern
   naal<sup>7</sup> is my tool for non-interactive AWS Azure login.
                                                                                                7 https://github.com/yurrriq/naal
\langle Install\ some\ user\ packages\ 47 \rangle + \equiv
                                                                         (44) ⊲54 57⊳
        naal
        networkmanager-openconnect
   It would be cool to play with Next<sup>8</sup> some lazy day.
                                                                                                 8 https://next.atlas.engineer/
⟨* 50⟩+≡
                                                                                      ⊲50
        next
\langle Install\ some\ user\ packages\ 47 \rangle + \equiv
                                                                         (44) ⊲55 58⊳
        openconnect
   PulseAudio Volume Control<sup>9</sup> is useful for configuring Bluetooth
                                                                                                 9 https://freedesktop.org/software/
                                                                                                 pulseaudio/pavucontrol/
audio.
\langle Install\ some\ user\ packages\ 47 \rangle + \equiv
                                                                         (44) \triangleleft 57 \ 59 \triangleright
        pavucontrol
        renderizer
        SCC
        lm_sensors
        nfs-utils
        libnotify
        paper-icon-theme
   Try to improve battery life.
\langle Install\ some\ user\ packages\ 47 \rangle + \equiv
                                                                         (44) ⊲58 60⊳
        powertop
   Install Tomb<sup>10</sup> and related packages.
                                                                                                 10 https://www.dyne.org/software/
\langle Install\ some\ user\ packages\ 47 \rangle + \equiv
                                                                         (44) ⊲59 61⊳
        tomb
        file
        lsof
```

More Trondheim wireless debugging...

```
⟨Install some user packages 47⟩+≡
     wirelesstools
     nixpkgs-unstable.zoom-us
] ++ (
     with nodePackages; [
        aws-azure-login
     ]
    )
);
```

## Modules

#### Common

```
This module is a lambda that takes at least pkgs in its arguments.
\langle modules/common.nix 62 \rangle \equiv
                                                                         63 ⊳
  { pkgs, ... }:
  {
   Configure garbage collection (gc) and my personal Cachix<sup>11</sup>-based
                                                                                  11 https://cachix.org
binaryCaches.
• https://yurrriq.cachix.org

    https://yurrriq-nur-packages.cachix.org

\langle modules/common.nix 62 \rangle + \equiv
                                                                    ⊲62 64⊳
    nix = {
       binaryCaches = [
         "https://yurrriq.cachix.org"
         "https://yurrriq-nur-packages.cachix.org"
       binaryCachePublicKeys = [
         "yurrriq.cachix.org-1:evpJ5wKluf7Q0Ccv69VkIxCOtHgubrqXlZpp3JAXLBE="
         "yurrriq-nur-packages.cachix.org-1:7kbjuGBUZcWf876g2cdelmIQXrXzOhpMVBqYOyyAv70="
       ];
       gc = {
         automatic = true;
         options = "-delete-older-than 30d";
       };
    };
   Install the Nerd Fonts<sup>12</sup> patched Iosevka<sup>13</sup>.
                                                                                  12 https://www.nerdfonts.com
                                                                                  13 http://be5invis.github.io/
\langle modules/common.nix 62 \rangle + \equiv
                                                                    ⊲63 65⊳
                                                                                  Iosevka
    fonts = {
       enableFontDir = true;
       fonts = with pkgs; [
         (nerdfonts.override { fonts = [ "Iosevka" ]; })
       ];
    };
   Enable system-wide Bash completion.
\langle modules/common.nix 62 \rangle + \equiv
                                                                    464 66 ⊳
    programs.bash.enableCompletion = true;
```

```
\langle modules/common.nix \; 62 \rangle + \equiv
                                                                          ⊲65
Packages
\langle modules/packages.nix 67 \rangle \equiv
                                                                          68⊳
  { lib, pkgs, ... }:
  {
\langle modules/packages.nix 67 \rangle + \equiv
                                                                     ⊲67 69 ⊳
    environment.systemPackages = with pkgs; (
       aspell
         aspellDicts.en
         awscli
         bind
         cachix
         coreutils
         # TODO: cquery
         curl
         expect
         gawk
         gcc
         gnumake
         gnused
         gnutar
         # TODO: graphviz
         gzip
         httpie
         # TODO: http-prompt
         # TODO: idris
         moreutils
         neofetch
         nix
         noweb
         pandoc
         prettyping
         ripgrep
         shellcheck
         silver-searcher # TODO: find helm-rg solution
         slack
         spotify
         stow
```

```
\langle modules/packages.nix \ 67 \rangle + \equiv
                                                                        ⊲68 70⊳
            texlive.combine {
              inherit (texlive) scheme-small
                 datetime
                 dirtytalk
                 fmtcount
                 framed
                 fvextra
                 hardwrap
                 ifplatform
                 latexmk
                 minted
                 titlesec
                 todonotes
                 tufte-latex
                 xetex
                 xstring
              inherit noweb;
            }
         )
\langle modules/packages.nix 67 \rangle + \equiv
                                                                        ⊲69 71⊳
         tree
         unzip
         vim
         watch
         # wipe
       ]
\langle modules/packages.nix 67 \rangle + \equiv
                                                                        ⊲70 72⊳
     ) ++ (
       with haskellPackages; [
         cabal-install
         cabal2nix
         hpack
         # FIXME: stylish-haskell
       ]
\langle modules/packages.nix 67 \rangle + \equiv
                                                                        ⊲71 73⊳
     ) ++ (
       with nodePackages; [
         # TODO: bash-language-server
       ]
\langle modules/packages.nix 67 \rangle + \equiv
                                                                        ⊲72 74⊳
     ) ++ (
       with python3Packages; [
         pygments
       ]
```

```
\langle modules/packages.nix 67 \rangle + \equiv
                                                                           ⊲73 75⊳
     ) ++ lib.optionals stdenv.isDarwin (
       clementine
          m-cli
          sourcetree
          onyx
       ] ++ (
          with chunkwm; [
            core
            ffm
            tiling
          ]
       )
\langle \mathit{modules/packages.nix} \ 67 \rangle + \equiv
                                                                           ⊲74 76⊳
     ) ++ lib.optionals stdenv.isLinux [
       gnome3.networkmanagerapplet
       hicolor-icon-theme
       keybase-gui
       libreoffice
       qpdfview
       playerctl
       psmisc
\langle \mathit{modules/packages.nix} \ 67 \rangle + \equiv
                                                                           ⊲75 77⊳
       (
          (import <nixpkgs-unstable> { config.allowUnfree = true; }).signal-desktop.override {
            spellcheckerLanguage = "en_US";
          }
       )
\langle modules/packages.nix 67 \rangle + \equiv
                                                                           ⊲76 78⊳
       thunderbird
       volumeicon
       xclip
       xorg.xbacklight
     ];
\langle modules/packages.nix 67 \rangle + \equiv
                                                                                 ⊲77
  }
Location
\langle modules/location.nix 79 \rangle \equiv
                                                                                 80⊳
  { config, lib, ... }:
\langle modules/location.nix \ 79 \rangle + \equiv
                                                                           ⊲79 81⊳
  let
     airportCode = config.airportCode;
  in
  {
```

```
\langle modules/location.nix 79 \rangle + \equiv
                                                                    ⊲80 82⊳
    options.airportCode = lib.mkOption {
      default = "MSP";
      type = lib.types.enum [ "ATL" /* "LHR" */ "LJU" "MSP" "TRD" ];
    };
\langle modules/location.nix 79 \rangle + \equiv
                                                                     ⊲81 83⊳
    config = lib.mkMerge [
  The Sportradar office in Minneapolis.
\langle modules/location.nix 79 \rangle + \equiv
                                                                     ⊲82 84⊳
         lib.mkIf (airportCode = "MSP") {
           location = {
             latitude = 44.98;
             longitude = -93.27;
           };
           time.timeZone = "America/Chicago";
  Cook Out on Ponce de Leon Ave.
\langle modules/location.nix~79\rangle + \equiv
                                                                     ⊲83 85⊳
         lib.mkIf (airportCode = "ATL") {
           location = {
             latitude = 33.77;
             longitude = -84.37;
           time.timeZone = "America/New_York";
         }
      )
  The Sportradar office in London.
\langle modules/location.nix 79 \rangle + \equiv
                                                                     ⊲84 86⊳
         lib.mkIf (airportCode = "LHR") {
           location = {
             latitude = 51.51;
              longitude = -0.09;
           time.timeZone = "Europe/London";
         }
      )
  The Sportradar office in Ljubljana.
\langle modules/location.nix 79 \rangle + \equiv
                                                                     ⊲85 87⊳
         lib.mkIf (airportCode = "LJU") {
           location = {
             latitude = 46.09;
              longitude = 14.55;
           };
           time.timeZone = "Europe/Ljubljana";
         }
       )
```

```
The Sportradar office in Trondheim.
\langle modules/location.nix 79 \rangle + \equiv
                                                                          ⊲86 88⊳
          lib.mkIf (airportCode = "TRD") {
            location = {
               latitude = 63.43;
               longitude = 10.40;
            time.timeZone = "Europe/Oslo";
          }
       )
\langle modules/location.nix~79\rangle + \equiv
                                                                               ⊲87
     ];
  }
NixOS
\langle modules/nixos.nix 89 \rangle \equiv
                                                                               90⊳
  { pkgs, ... }:
  {
\langle modules/nixos.nix 89 \rangle + \equiv
                                                                          ⊲89 91⊳
     boot = {
       cleanTmpDir = true;
       loader = {
          systemd-boot.enable = true;
          efi.canTouchEfiVariables = true;
       };
     };
\langle modules/nixos.nix 89 \rangle + \equiv
                                                                          ⊲90 92⊳
     # console.font = "latarcyrheb-sun32";
     console.font = "Lat2-Terminus16";
     console.keyMap = "us";
     i18n.defaultLocale = "en_US.UTF-8";
\langle modules/nixos.nix 89 \rangle + \equiv
                                                                          ⊲91 93⊳
     location.provider = "manual";
\langle modules/nixos.nix 89 \rangle + \equiv
                                                                          ⊲92 94⊳
     networking.networkmanager.enable = true;
\langle modules/nixos.nix 89 \rangle + \equiv
                                                                          ⊲93 95⊳
     nixpkgs.config.allowUnfree = true;
```

```
\langle modules/nixos.nix \ 89 \rangle + \equiv
                                                                 ⊲94 96⊳
    services = {
      fstrim.enable = true;
      logind.lidSwitch = "hibernate";
      kbfs.enable = true;
      redshift = {
        enable = true;
        temperature.night = 2300;
      };
      unclutter = {
        enable = false; # FIXME
        extraOptions = [ "exclude-root" "ignore-scrolling" ];
        threshold = 1;
        timeout = 1;
      };
```

```
\langle modules/nixos.nix 89 \rangle + \equiv
                                                                     ⊲95 97⊳
       xserver = {
         enable = true;
         autorun = true;
         displayManager = {
           lightdm.enable = true;
           session = [
              {
                name = "home-manager";
                manage = "window";
                start = "
                  ${pkgs.runtimeShell} $HOME/.hm-xsession &
                  waitPID=$!
              }
           ];
         };
         layout = "us";
         libinput = {
           enable = true;
           accelSpeed = "1.0";
           disableWhileTyping = true;
           naturalScrolling = false;
           tapping = true;
         };
         videoDrivers = [
           "intel"
         ];
         xkbOptions = "ctrl:nocaps,compose:ralt";
       };
    };
\langle modules/nixos.nix 89 \rangle + \equiv
                                                                     ⊲96 98⊳
    hardware.pulseaudio = {
       enable = true;
       extraModules = [ pkgs.pulseaudio-modules-bt ];
       package = pkgs.pulseaudioFull;
     };
     sound.enable = true;
\langle modules/nixos.nix 89 \rangle + \equiv
                                                                     ⊲97 99⊳
     system.stateVersion = "20.09";
\langle modules/nixos.nix 89 \rangle + \equiv
                                                                    ⊲98 100⊳
     virtualisation.docker.enable = true;
\langle modules/nixos.nix 89 \rangle + \equiv
                                                                          ⊲99
```

#### Darwin

```
\langle modules/darwin.nix\ 101 \rangle \equiv
                                                                    102 ⊳
  { pkgs, ... }:
  {
\langle modules/darwin.nix \ 101 \rangle + \equiv
                                                              ⊲101 103⊳
    nixpkgs.config.allowUnfree = true;
\langle modules/darwin.nix \ 101 \rangle + \equiv
                                                              ⊲102 104⊳
    services.chunkwm = {
      enable = true;
      extraConfig = "
        chunkc core::log_file /usr/local/var/log/chunkwm.log
        chunkc core::log_level info
        chunkc tiling::rule -owner "Cisco AnyConnect Secure Mobility Client" -state float &
        chunkc tiling::rule -owner Emacs -except "^$" -state tile &
      package = pkgs.chunkwm.core;
      plugins = {
        dir = "/run/current-system/sw/bin/chunkwm-plugins/";
        list = [ "ffm" "tiling" ];
        "tiling".config = "
          chunkc set desktop_padding_step_size
                                                       0
          chunkc set desktop_gap_step_size
                                                       0
          chunkc set global_desktop_mode
                                                       bsp
          chunkc set global_desktop_offset_top
                                                       0
          chunkc set global_desktop_offset_bottom
                                                       0
          chunkc set global_desktop_offset_left
          chunkc set global_desktop_offset_right
                                                       0
                                                       0
          chunkc set global_desktop_offset_gap
          chunkc set bsp_spawn_left
                                                       1
          chunkc set bsp_optimal_ratio
                                                       1.618
          chunkc set bsp_split_mode
                                                       optimal
                                                       0.66
          chunkc set bsp_split_ratio
          chunkc set window_focus_cycle
                                                       all
          chunkc set mouse_follows_focus
                                                       1
          chunkc set window_region_locked
                                                       1
      };
    };
```

**}**;

```
\langle modules/darwin.nix\ 101 \rangle + \equiv
                                                            ⊲103 105⊳
    services.skhd = {
      enable = true;
      package = pkgs.skhd;
      skhdConfig = "
        alt - space : /Applications/kitty.app/Contents/MacOS/kitty -single-instance -d ~
        ctrl + alt + cmd - up
                                : chunkc tiling::window -warp north
        ctrl + alt + cmd - right : chunkc tiling::window -warp east
        ctrl + alt + cmd - down : chunkc tiling::window -warp south
        ctrl + alt + cmd - left : chunkc tiling::window -warp west
        shift + alt + cmd - up
                                 : chunkc tiling::window -focus north
        shift + alt + cmd - right : chunkc tiling::window -focus east
        shift + alt + cmd - down : chunkc tiling::window -focus south
        shift + alt + cmd - left : chunkc tiling::window -focus west
        ctrl + alt + cmd - e : chunkc tiling::desktop -equalize
        ctrl + alt + cmd - f : chunkc tiling::window -toggle float
        ctrl + alt + cmd - m : chunkc tiling::window -toggle fullscreen
        shift + cmd - 1 : chunkc tiling::window -send-to-desktop 1
        shift + cmd - 2 : chunkc tiling::window -send-to-desktop 2
        shift + cmd - 3 : chunkc tiling::window -send-to-desktop 3
        shift + cmd - 4 : chunkc tiling::window -send-to-desktop 4
        shift + cmd - 5 : chunkc tiling::window -send-to-desktop 5
        shift + cmd - 6 : chunkc tiling::window -send-to-desktop 6
    };
                                                                             Dig through https://github.
                                                                             com/mathiasbynens/dotfiles/
  Set AppleKeyboardUIMode = 3 to enable full keyboard access, e.g.
                                                                             blob/master/.macos
tab in dialogs. Disable press-and-hold, in favor of key repeat.
\langle modules/darwin.nix\ 101 \rangle + \equiv
                                                            ⊲104 106⊳
    system.defaults.NSGlobalDomain = {
      AppleKeyboardUIMode = 3;
      ApplePressAndHoldEnabled = false;
      InitialKeyRepeat = 10;
      KeyRepeat = 1;
      NSAutomaticDashSubstitutionEnabled = false;
      NSAutomaticQuoteSubstitutionEnabled = false;
      NSAutomaticSpellingCorrectionEnabled = true;
      NSNavPanelExpandedStateForSaveMode = true;
      NSNavPanelExpandedStateForSaveMode2 = true;
    };
\langle modules/darwin.nix \ 101 \rangle + \equiv
                                                            ⊲105 107⊳
    system.defaults.dock = {
      autohide = true;
      mru-spaces = false;
      orientation = "right";
      showhidden = true;
```

```
\langle modules/darwin.nix\ 101\rangle + \equiv \\ \text{system.defaults.finder} = \{ \\ \text{AppleShowAllExtensions} = \text{true}; \\ \text{FXEnableExtensionChangeWarning} = \text{false}; \\ \text{QuitMenuItem} = \text{true}; \\ \}; \\ \\ \langle modules/darwin.nix\ 101\rangle + \equiv \\ \text{system.defaults.trackpad.Clicking} = \text{true}; \\ \\ \langle modules/darwin.nix\ 101\rangle + \equiv \\ \langle modules/darwin.nix\ 101\rangle +
```

# Software configuration

**}**;

}

```
Bash
Enable the Bash module, as well as autojump.
\langle config/bash.nix \ 110 \rangle \equiv
  { ... }:
  {
     programs.autojump.enable = true;
     programs.bash.enable = true;
  }
bat
Enable the bat^{14} module.
                                                                                               14 https://github.com/sharkdp/bat
\langle config/bat.nix 111 \rangle \equiv
                                                                                   112⊳
  { ... }:
  {
     programs.bat = {
        enable = true;
        config = {
   For the pager, use less.
\langle \mathit{config/bat.nix} \ 111 \rangle + \equiv
                                                                            ⊲111 113⊳
          pager = "less -FR";
   Set the style to changes.
\langle config/bat.nix 111 \rangle + \equiv
                                                                            ⊲112 114⊳
          style = "changes";
   Use the Monokai Extended theme.
\langle config/bat.nix 111 \rangle + \equiv
                                                                            ⊲113 115⊳
          theme = "Monokai Extended";
\langle \mathit{config/bat.nix} \ 111 \rangle + \equiv
                                                                                   ⊲114
       };
```

#### Browserpass

```
\langle config/browserpass.nix \ 116 \rangle \equiv
  { pkgs, ... }:
  {
    home.packages = with pkgs; [
       browserpass
     ];
    programs.browserpass = {
       enable = true;
       browsers = [ "firefox" ];
    };
  }
```

## bugwarrior

```
\langle \mathit{config/bugwarrior}.\mathit{nix}\ 117 \rangle {\equiv}
                                                                                           118⊳
   { config, pkgs, ... }:
   {
\langle config/bugwarrior.nix\ 117 \rangle + \equiv
                                                                                   ⊲117 119⊳
     home.packages = with pkgs; [
        bugwarrior
      ];
\langle \mathit{config/bugwarrior}.\mathit{nix}\ 117 \rangle + \equiv
                                                                                   ⊲118 120⊳
      imports = [
         ./password-store.nix
         ./taskwarrior
        ./password-store.nix
      ];
```

```
\langle config/bugwarrior.nix 117 \rangle + \equiv
                                                                 ⊲119 121⊳
    xdg.configFile."bugwarrior/bugwarriorrc".text = "
      [general]
      targets = sportradar_jira
      taskrc = ${config.home.homeDirectory}/.taskrc
      inline_links = False
      annotation_links = True
      annotation_comments = True
      legacy_matching = False
      log.level = DEBUG
      log.file = ${config.home.homeDirectory}/log/bugwarrior.log
      annotation_length = 80
      [sportradar_jira]
      service = jira
      jira.base_uri = https://jira.sportradar.ag
      jira.username = e.bailey
      jira.password = @oracle:eval:pass jira.sportradar.ag
      jira.query = ((assignee = e.bailey OR reporter = e.bailey) OR (summary ~ e.baley OR description ~ e.bailey OR c
      jira.version = 8
      jira.add_tags = work
      jira.description_template = {{jiraid}}: {{jirasummary}}
\langle \mathit{config/bugwarrior}.\mathit{nix}\ 117 \rangle + \equiv
                                                                       ⊲120
direnv
\langle \mathit{config/direnv.nix} \ 122 \rangle \equiv
  { ... }:
  {
    programs.direnv = {
      enable = true;
      enableZshIntegration = false;
    };
  }
```

#### Emacs

```
\langle config/emacs/default.nix 123 \rangle \equiv
  { config, lib, pkgs, ... }:
  {
    imports = [
       ./packages.nix
    home.file.".emacs.d/init.el".source = ./init.el;
    home.sessionVariables = rec {
      EDITOR = "emacsclient -nw -a \"\"";
      GIT_EDITOR = EDITOR;
      VISUAL = "emacsclient -cna \"\"";
    };
    programs.emacs.enable = true;
    programs.fish.shellAliases = lib.mkIf (config.programs.fish.enable) rec {
      e = "emacsclient -na \"\"";
      ec = e + " -c";
      et = "emacsclient -nw -a \"\"";
    };
    services.emacs.enable = ! pkgs.stdenv.isDarwin;
  }
\langle config/emacs/packages.nix 124 \rangle \equiv
                                                                       125 ⊳
  { ... }:
  {
    programs.emacs.extraPackages = epkgs: with {
      elpa = epkgs.elpaPackages;
      melpa = epkgs.melpaPackages;
       melpaStable = epkgs.melpaStablePackages;
      # org = epkgs.orgPackages;
    }; (
\langle \mathit{config/emacs/packages.nix} \ 124 \rangle + \equiv
                                                                 ⊲ 124 126 ⊳
      with elpa; [
        mmm-mode
         rainbow-mode
       ]
```

```
\langle \mathit{config/emacs/packages.nix} \ 124 \rangle + \equiv
                                                              ⊲125 127⊳
    ) ++ (
      with melpa; [
        better-defaults
        clj-refactor
        clojure-mode
        # TODO: company-lsp
        # TODO: cquery
        crux
        dhall-mode
        direnv
        dockerfile-mode
        editorconfig
        elixir-mode
        emojify
        enh-ruby-mode
        erlang
        fill-column-indicator
        fish-mode
        frames-only-mode
        gap-mode
        go-mode
        graphviz-dot-mode
        haskell-mode
        helm-ag
        # TODO: hindent
        hl-todo
        htmlize
        idris-mode
        j-mode
        lfe-mode
        kubernetes-tramp
        # TODO: lsp-haskell
        # TODO: 1sp-mode
        # TODO: lsp-ui
        magit
        markdown-mode
        multiple-cursors
        nix-mode
        nyan-mode
        paredit
        rainbow-delimiters
        robe
        rust-mode
        rvm
        smex
        terraform-mode
        tuareg
        use-package
        whitespace-cleanup-mode
        yaml-mode
      ]
    ) ++ (
```

```
\langle \mathit{config/emacs/packages.nix} \ 124 \rangle + \equiv
                                                                                  ⊲126
       with melpaStable; [
          ess
        ]
     );
  }
Init File
\langle config/emacs/init.el \ 128 \rangle \equiv
                                                                                  129⊳
   (server-start)
\langle \mathit{config/emacs/init.el~128} \rangle + \equiv
                                                                           ⊲128 130⊳
   (setq server-window 'pop-to-buffer-same-window)
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                           ⊲129 131⊳
   (column-number-mode 1)
\langle config/emacs/init.el~128 \rangle + \equiv
                                                                           ⊲130 132⊳
   (add-to-list 'exec-path "/run/current-system/sw/bin")
\langle config/emacs/init.el~128 \rangle + \equiv
                                                                           ⊲131 133⊳
   (menu-bar-mode 0)
   (scroll-bar-mode 0)
   (tool-bar-mode 0)
\langle config/emacs/init.el~128 \rangle + \equiv
                                                                           ⊲132 134⊳
   (let ((font "Iosevka-10"))
     (set-face-attribute 'default t :font font)
     (set-frame-font font nil t))
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                           ⊲133 135⊳
   (require 'package)
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                           ⊲134 136⊳
   (setq-default frames-only-mode t
                     indent-tabs-mode nil
                     package-archives nil
                    package-enable-at-startup nil)
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                          ⊲135 137⊳
   (package-initialize)
   (eval-when-compile
     (require 'use-package))
   (setq-default use-package-always-defer t
                    use-package-always-ensure t)
```

```
https://stackoverflow.com/a/18330742
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                              ⊲136 138⊳
  (let ((backup-directory (concat user-emacs-directory "backup")))
    (unless (file-exists-p backup-directory)
       (make-directory backup-directory t))
    (setq backup-directory-alist '(("" . ,backup-directory))))
  (setq auto-save-default
                                     t
        auto-save-interval
                                    200
                                     20
        auto-save-timeout
        backup-by-copying
                                     ŧ.
        delete-by-moving-to-trash t
        delete-old-versions
        kept-new-versions
                                    6
                                    2
        kept-old-versions
        make-backup-files
                                    t
         vc-make-backup-files
        version-control
                                    t)
  https://anirudhsasikumar.net/blog/2005.01.21.html Copyright
©2004-2011 Anirudh Sasikumar. All rights reserved.
\langle \mathit{config/emacs/init.el~128}\rangle + \equiv
                                                              ⊲137 139⊳
  (define-minor-mode sensitive-mode
    "For sensitive files like password lists.
  It disables backup creation and auto saving.
  With no argument, this command toggles the mode.
  Non-null prefix argument turns on the mode.
  Null prefix argument turns off the mode."
    ;; The initial value.
    nil
    ;; The indicator for the mode line. " \ensuremath{\mathbb{Z}} "
    ;; The minor mode bindings.
    nil
    (if (symbol-value sensitive-mode)
         (progn
           ;; disable backups
           (set (make-local-variable 'backup-inhibited) t)
           ;; disable auto-save
           (if auto-save-default
               (auto-save-mode -1)))
       ;; resort to default value of backup-inhibited
       (kill-local-variable 'backup-inhibited)
       ;; resort to default auto save setting
      (if auto-save-default
           (auto-save-mode 1))))
\langle config/emacs/init.el 128 \rangle + \equiv
                                                              ⊲138 140⊳
  (dolist (pattern '("^\\(/dev/shm/\\|/tmp/\\)"
                       "\.\(enc\)\
    (add-to-list 'auto-mode-alist (cons pattern 'sensitive-mode)))
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                              ⊲139 141⊳
  (setq custom-file "~/.emacs.d/private/local/custom.el")
```

```
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                       ⊲140 142⊳
  (load-theme 'wombat)
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                       ⊲141 143⊳
   (global-set-key (kbd "C-x C-k") 'kill-this-buffer)
  (global-set-key (kbd "s-u") 'revert-buffer)
\langle \mathit{config/emacs/init.el~} 128 \rangle + \equiv
                                                                       ⊲142 144⊳
                                   "k&r"
  (setq c-default-style
         c-basic-offset
         emacs-lisp-mode-hook '(fci-mode paredit-mode
                                      rainbow-delimiters-mode)
          js-indent-level
          text-mode-hook
                                   '(text-mode-hook-identify))
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                       ⊲143 145⊳
  (setq-default fill-column 80)
\langle config/emacs/init.el~128 \rangle + \equiv
                                                                       ⊲144 146⊳
  (org-babel-do-load-languages
    'org-babel-load-languages
    '((shell . t)))
\langle config/emacs/init.el 128 \rangle + \equiv
                                                                       ⊲145 147⊳
   (use-package avy
     :demand
     :config
     (global-set-key (kbd "C-;") 'avy-goto-char)
     (global-set-key (kbd "C-'") 'avy-goto-char-2)
     (global-set-key (kbd "M-g f") 'avy-goto-line))
\langle config/emacs/init.el~128 \rangle + \equiv
                                                                       ⊲146 148⊳
  (use-package crux
     :demand
     :config (global-set-key (kbd "C-a") 'crux-move-beginning-of-line))
\langle config/emacs/init.el 128 \rangle + \equiv
                                                                       ⊲147 149⊳
   (use-package editorconfig
     :ensure t
     :config
     (editorconfig-mode 1))
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                       ⊲148 150⊳
   (use-package emojify)
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                       ⊲149 151⊳
  (use-package helm
     :demand
     :config
     (global-set-key (kbd "M-s-f") 'helm-do-grep-ag)
     (global-set-key (kbd "M-s-f") 'helm-do-grep-ag))
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                       ⊲150 152⊳
  (use-package hl-todo
     :demand
     :config (global-hl-todo-mode t))
```

```
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                        ⊲151 153⊳
  (use-package magit
     :demand
     :config (global-magit-file-mode t))
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                        ⊲152 154⊳
  (use-package multiple-cursors
     :demand
     :config (global-set-key (kbd "C-S-c C-S-c") 'mc/edit-lines))
\langle config/emacs/init.el~128 \rangle + \equiv
                                                                        ⊲ 153 155 ⊳
  (use-package nix-mode
     :mode ("\\.nix\\'"))
\langle \mathit{config/emacs/init.el~} 128 \rangle + \equiv
                                                                        ⊲154 156⊳
  (use-package noweb-mode
     :load-path "/run/current-system/sw/share/emacs/site-lisp"
     :mode ("\\.nw\\'")
     :demand)
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                        ⊲155 157⊳
  (use-package nyan-mode
     :demand
     :config (nyan-mode 1))
\langle config/emacs/init.el~128 \rangle + \equiv
                                                                        ⊲156 158⊳
  (use-package robe
     :demand
     :mode ("\\.rb\\'"))
\langle config/emacs/init.el~128 \rangle + \equiv
                                                                        ⊲157 159⊳
  (use-package rvm
     :ensure t)
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                        ⊲158 160⊳
  (use-package smex
     :demand
     :config
     (global-set-key (kbd "M-x") 'smex)
     (global-set-key (kbd "M-X") 'smex-major-mode-commands)
     (global-set-key (kbd "C-c C-c M-x") 'execute-extended-command))
\langle config/emacs/init.el~128 \rangle + \equiv
                                                                        ⊲ 159 161 ⊳
  (use-package tuareg
     :mode ("\\.ml\\'" "\\.mli\\'"))
\langle config/emacs/init.el \ 128 \rangle + \equiv
                                                                               ⊲160
  (use-package whitespace-cleanup-mode
     :demand
     :config (global-whitespace-cleanup-mode t))
```

```
Firefox
```

```
\langle config/firefox.nix \ 162 \rangle \equiv
  { pkgs, ... }:
  {
    programs.firefox = {
      enable = true;
      extensions = with (import <nur> { inherit pkgs; }).repos.rycee.firefox-addons; [
        browserpass-otp
        darkreader
        https-everywhere
        lastpass-password-manager
        privacy-badger
      ];
      profiles = {
        default = {
          settings = {
            # http://kb.mozillazine.org/About:config_entries
            "browser.ctrlTab.recentlyUsedOrder" = false;
            "browser.newtabpage.activity-stream.asrouter.userprefs.cfr.addons" = false;
            "browser.newtabpage.activity-stream.asrouter.userprefs.cfr.features" = false;
            "browser.newtabpage.activity-stream.feeds.section.topstories" = false;
            "browser.newtabpage.activity-stream.feeds.snippets" = false;
            # FIXME: "browser.newtabpage.activity-stream.improvesearch.topSiteSearchShortcuts.havePinned" = null;
            "browser.newtabpage.activity-stream.section.highlights.includePocket" = false;
            "browser.newtabpage.activity-stream.showSearch" = false;
            # FIXME: "browser.newtabpage.pinned" = "[]";
            # FIXME: "browser.search.defaultenginename" = "DuckDuckGo";
            # FIXME: "browser.search.defaulturl" = "https://duckduckgo.com/?q=";
            "browser.search.hiddenOneOffs" = "Google,Bing,Amazon.com,eBay,Twitter,Wikipedia (en)";
            # FIXME: git "browser.search.selectedEngine" = "DuckDuckGo";
            "browser.search.suggest.enabled" = false;
            "browser.startup.page" = 3;
            "browser.tabs.unloadOnLowMemory" = true;
            "browser.urlbar.placeholderName" = "DuckDuckGo";
            "extensions.activeThemeID" = "firefox-compact-dark@mozilla.org";
            "font.size.variable.x-western" = 12;
            "signon.rememberSignons" = false;
          };
        };
      };
    };
  }
```

```
fish
\langle config/fish/default.nix\ 163 \rangle \equiv
  { config, lib, pkgs, ... }:
  {
    imports = [
      ./abbrs.nix
      ./aliases.nix
    ];
    home = {
      packages = with pkgs; [
        exa
      ];
      sessionVariables = {
        SHELL = "fish";
        TERMINAL = "kitty";
      };
    };
    programs.autojump.enable = true;
    programs.fish =
      let
        inherit (lib.strings) fileContents;
      in
      {
        enable = true;
        interactiveShellInit = fileContents ./interactiveShellInit.fish;
        promptInit = lib.mkIf (!(config.programs.starship.enable)) "
          ${fileContents ./sushi/fish_prompt.fish}
          ${fileContents ./sushi/fish_right_prompt.fish}
        shellInit = fileContents ./shellInit.fish;
      };
  }
```

#### Fish abbreviations

"abbr manages abbreviations - user-defined words that are replaced with longer phrases after they are entered.

For example, a frequently-run command like git checkout can be abbreviated to gco. After entering gco and pressing Space or Enter, the full text git checkout will appear in the command line." <sup>15</sup>

```
^{15} abbr - manage fish abbreviations.
URL https://fishshell.com/docs/
current/cmds/abbr.html
```

```
\langle config/fish/abbrs.nix 164 \rangle \equiv
  { ... }:
  {
     programs.fish.shellAbbrs = {
        \langle AWS \ Azure \ login \ abbreviation \ 165 \rangle
        (Kubernetes fish abbreviations 166)
        (Nix fish abbreviations 167)
        ⟨ripgrep fish abbreviations 168⟩
     };
  }
```

NAAL<sup>16</sup> IS COOL AND ALL, BUT...

... it's a bad habit too. the aal abbeviation makes being not so sneaky a bit less annoying.

```
\langle AWS \ Azure \ login \ abbreviation \ 165 \rangle \equiv
                                                                                          (164)
   aal = "aws-azure-login -no-prompt";
```

kubectl is very cumbersome to type all the time. Using fish abbrevations, save some precious keystrokes. It's definitely worth the time.

```
\langle Kubernetes \ fish \ abbreviations \ 166 \rangle \equiv
                                                                       (164)
  kc = "kubectl";
  kcd = "kubectl drain -delete-local-data -ignore-daemonsets";
  kcnp = "kubectl get pods -field-selector=spec.nodeName=";
  kcx = "kubectl -context";
  kgno = "kubectl get nodes";
  kn = "kubens";
  kns = "kubens";
  kt = "stern";
  kx = "kubectx";
```

IT'S USEFUL TO RUN nix build with various flags. Why not save some keystrokes for those tasks, too?

```
\langle Nix fish \ abbreviations \ 167 \rangle \equiv
                                                                               (164)
  nb = "nix build";
  nbd = "nix build -dry-run";
  nbn = "nix build -no-link";
  nbo = "nix build -o";
```

16 https://github.com/yurrriq/naal

I'M NOT QUITE USED TO all the ripgrep flags yet. I'm also a lazy typist, so define some memorable abbreviations.

"Searches case insensitively if the pattern is all lowercase. Search case sensitively otherwise."  $^{17}$ 

```
\langle ripgrep \ fish \ abbreviations \ 168 \rangle \equiv
                                                                                  (164) 169 ⊳
   rg = "rg -S";
\langle ripgrep\ fish\ abbreviations\ 168 \rangle + \equiv
                                                                          (164) ⊲168 170⊳
   rga = "rg -hidden -iglob !.git";
   rgf = "rg -F";
```

"Never print the file path with the matched lines", and "[s]uppress line numbers."18

```
\langle ripgrep \ fish \ abbreviations \ 168 \rangle + \equiv
                                                                                                       (164) \triangleleft 169 \ 171 \triangleright
    rgin = "rg -IN";
```

```
λ rg -IN name: helmfile.d/*.yaml | sort -u
- name: cert-manager
- name: cluster-autoscaler
- name: elastalert
- name: elasticsearch-client
- name: elasticsearch-curator
- name: elasticsearch-exporter
- name: elasticsearch-master
- name: external-dns
- name: fluentd-elasticsearch
```

- name: kibana - name: kube-resource-report - name: metrics-server

- name: hubble

}

- name: nginx-ingress-core

```
- name: prometheus-operator
```

rgn = "rg -no-heading";

```
\langle config/fish/aliases.nix 172 \rangle \equiv
```

 $\langle ripgrep \ fish \ abbreviations \ 168 \rangle + \equiv$ 

```
{ ... }:
{
  programs.fish.shellAliases = rec {
   gpg = "gpg2";
    k = "clear";
    1 = "exa -color=auto -G";
    11 = "exa -color=auto -Gla";
    # Old Darwin habits
    pbcopy = "xclip -sel clipboard";
    pbpaste = "${pbcopy} -o";
  };
```

<sup>17</sup> Andrew Gallant. rg - man page. URL https://www.mankier.com/1/rg

 $^{18}\,\mathrm{Andrew}$  Gallant. rg - man page. URL https://www.mankier.com/1/rg

 $(164) \triangleleft 170$ 

```
\langle \mathit{config/fish/shellInit.fish} \ 173 \rangle {\equiv}
  for p in /run/current-system/sw/bin ~/bin
      if not contains $p $fish_user_paths
           set -U fish_user_paths $p $fish_user_paths
      end
  end
  set -U fish_user_paths /run/wrappers/bin $fish_user_paths
  function fish_title
    echo "$PWD | $_" | sed "s|$HOME|~|g"
  end
\langle config/fish/interactiveShellInit.fish\ 174 \rangle \equiv
                                                                     175⊳
  function clone
    function __update
      test -d $argv[1]; and cd $argv[1]; and git fetch -all; and git pull
    end
    function __usage
      echo "Usage: clone [username] [repository] [[destination]]"
    end
    set -local num_args (count $argv)
    if test $num_args -ge 2
      set -local user $argv[1]
      set -local repo $argv[2]
      if test num_args -eq 2
        set dest ~/src/$user/$repo
      else if test $num_args -eq 3
        set dest $argv[3]/$user/$repo
      else
         __usage
      end
      echo $dest
      git clone git@github.com:$user/$repo.git $dest; or __update $dest; or __usage
    else
      __usage
    end
  end
```

```
\langle config/fish/interactiveShellInit.fish\ 174 \rangle + \equiv
                                                                  ⊲174 176⊳
  function latest -d 'Print the latest tag (on GitHub) for a given user and repo.'
    # TODO: __usage
    set -local num_args (count $argv)
    if test $num_args -eq 2
       set -local user $argv[1]
       set -local repo $argv[2]
       http https://api.github.com/repos/$user/$repo/tags | jq '.[0].name'
    end
  end
\langle config/fish/interactiveShellInit.fish\ 174\rangle + \equiv
                                                                  ⊲175 177⊳
  command -sq aws; and command -sq jq; and \
  function describe-cert -d 'List the domains for a given ACM certificate'
       test (count $argv) -ne 1; and return
       aws acm describe-certificate -certificate-arn $argv[1] |
       jq -r '.Certificate | .SubjectAlternativeNames[]'
\langle config/fish/interactiveShellInit.fish\ 174\rangle + \equiv
                                                                  ⊲176 178⊳
  command -sq fluidsynth; and function playmidi
       fluidsynth -i ~/lib/arachno-soundfont/Arachno\ SoundFont\ -\ Version\ 1.0.sf2 $argv
  end
\langle config/fish/interactiveShellInit.fish\ 174 \rangle + \equiv
                                                                  ⊲177 179⊳
  command -sq kitty; and function icat
       kitty +kitten icat $argv
  end
\langle \mathit{config/fish/interactiveShellInit.fish~174}\rangle + \equiv
                                                                  ⊲178 180⊳
  command -sq kubectl; and begin
      # TODO: Add option to print server versions too.
       function k8s::versions
           printf "kubectl %s\n" (command kubectl version -client -short)
           printf "helm %s\n" (command helm version -client -short)
           command helmfile -version
           printf "kops %s\n" (command kops version)
       end
       function kcterm -d 'Terminate a Kubernetes node'
           test (count $argv) -ne 1; and return
           kubectl get node -o jsonpath='{.spec.providerID}' $argv[1] |
           cut -d'/' -f5 |
           xargs aws ec2 terminate-instances -instance-ids
       end
  end
\langle \mathit{config/fish/interactiveShellInit.fish~174}\rangle + \equiv
                                                                  ⊲179 181 ⊳
  # FIXME: functions rvm >/dev/null 2>&1; and rvm default
\langle config/fish/interactiveShellInit.fish\ 174 \rangle + \equiv
                                                                 ⊲180 182⊳
  set fish_greeting
```

```
\label{eq:config} $$ \langle config/fish/interactiveShellInit.fish\ 174\rangle + \equiv $$ $$ <0mmand\ -sq\ task;$ and command\ -sq\ jq;$ and function tj \ -d 'Open the Jira ticket associated with a Taskwarrior task' test (count $argv)\ -ne\ 1;$ and return open (task $argv[1]\ export\ |\ jq\ -r\ '.[0].jiraurl')$ end
```

```
\langle config/fish/sushi/fish\_prompt.fish\ 183 \rangle \equiv
  function fish_prompt
      set -1 code $status
      if set -q IN_NIX_SHELL
          set symbol "λΠ "
      else
          set symbol "λ "
      end
      if git::is_repo
          set -1 branch (git::branch_name ^/dev/null)
          set -l ref (git show-ref -head -abbrev | awk '{print substr($0,0,7)}' | sed -n 1p)
          if git::is_stashed
              echo -n -s (white)"^"(off)
          echo -n -s (red)"("(off)
          if git::is_dirty
              printf (white)"*"(off)
          end
          if command git symbolic-ref HEAD > /dev/null ^/dev/null
              if git::is_staged
                  printf (cyan)"$branch"(off)
              else
                  printf (yellow)"$branch"(off)
              end
          else
              printf (dim)"$ref"(off)
          end
          for remote in (git remote)
              set -l behind_count (echo (command git rev-list $branch..$remote/$branch ^/dev/null | wc -l | tr -d " "
              set -l ahead_count (echo (command git rev-list $remote/$branch..$branch ^/dev/null | wc -l | tr -d " ")
              if test $ahead_count -ne 0; or test $behind_count -ne 0; and test (git remote | wc -1) -gt 1
                  echo -n -s " "(orange)$remote(off)
              end
              if test $ahead_count -ne 0
                  echo -n -s (white)" +"$ahead_count(off)
              end
              if test $behind_count -ne 0
                  echo -n -s (white)" -"$behind_count(off)
              end
          end
          echo -n -s (red)") "(off)
      end
      if test "$code" = 0
          echo -n -s (red)"$symbol"(off)
```

```
else
          echo -n -s (dim)"$symbol"(off)
      end
  end
\langle \mathit{config/fish/sushi/fish\_right\_prompt.fish} \ 184 \rangle \equiv
                                                                   185⊳
                                                function orange
      set_color -o ee5819
  function yellow
      set_color -o b58900
  end
  function red
      set_color -o d30102
  function cyan
     set_color -o 2aa198
  end
  function white
      set_color -o fdf6e3
  end
  function dim
      set_color -o 4f4f4f
  end
  function off
      set_color -o normal
  end
```

```
⊲184 186⊳
  function git::is_repo
      test -d .git; or command git rev-parse -git-dir >/dev/null ^/dev/null
  end
  function git::branch_name
      git::is_repo; and begin
          command git symbolic-ref -short HEAD ^/dev/null;
          or command git show-ref -head -s -abbrev | head -n1 ^/dev/null
      end
  end
  function git::is_dirty
      git::is_repo; and not command git diff -no-ext-diff -quiet -exit-code
  end
  function git::is_staged
      git::is_repo; and begin
          not command git diff -cached -no-ext-diff -quiet -exit-code
      end
  end
  function git::is_stashed
      git::is_repo; and begin
          command git rev-parse -verify -quiet refs/stash >/dev/null
      end
  end
\langle config/fish/sushi/fish\_right\_prompt.fish\ 184 \rangle + \equiv
                                                           ⊲185 187⊳
                                                ----- [ AWS ]
  function aws::current_profile
      if set -q AWS_PROFILE
          printf "$AWS_PROFILE"
      else if set -q AWS_DEFAULT_PROFILE
          printf "$AWS_DEFAULT_PROFILE"
      end
  end
\langle \mathit{config/fish/sushi/fish\_right\_prompt.fish} \ 184 \rangle + \equiv
                                  ----- [ Kubernetes ]
  function k8s::current_context
      command kubectl config current-context
  end
  function k8s::current_namespace
      command kubectl config view -minify -o jsonpath='{.contexts[0].context.namespace}'
  end
  function k8s::current_user
      command kubectl config view -minify -o jsonpath='{.users[0].name}' \
          | string replace "@sportradar.com" ""
  end
```

```
\langle \mathit{config/fish/sushi/fish\_right\_prompt.fish} \ 184 \rangle + \equiv
                                                                    ⊲187
                                              -- [ Right Prompt ]
  # -
  function fish_right_prompt
      set -1 cwd (basename (prompt_pwd))
       if git::is_repo
           set root_folder (command git rev-parse -show-toplevel ^/dev/null)
           set parent_root_folder (dirname $root_folder)
           set cwd (echo $PWD | sed -e "s|$parent_root_folder/||")
       end
       printf (yellow)"("(dim)$cwd(yellow)") "(off)
       set -l aws_profile (aws::current_profile)
       test -n "$aws_profile";
       and printf (dim)"{"(yellow)(aws::current_profile)(dim)"} "(off)
       command -sq kubectl; and begin
           if [ "e.bailey" = (k8s::current_user) ]
               printf (dim)"["(off)
           else
               printf (red)"["(off)
           end
           printf (yellow)(k8s::current_context)(off)
           set -1 k8s_namespace (k8s::current_namespace)
           test -n "$k8s_namespace";
           and printf (dim)"/"(yellow)"$k8s_namespace"(off)
           if [ "e.bailey" = (k8s::current_user) ]
               printf (dim)"] "(off)
           else
               printf (red)"] "(off)
           end
       end
       printf (dim)(date +%H(yellow):(dim)%M(yellow):(dim)%S)(off)
  end
fzf
\langle config/fzf.nix \ 189 \rangle \equiv
  { ... }:
  {
    programs.fzf = {
      enable = true;
       enableZshIntegration = false;
    };
  }
```

### Git

```
\langle \mathit{config/git/default.nix}\ 190\rangle {\equiv}
  { config, lib, pkgs, ... }:
  {
    imports = [
      ./aliases.nix
      ./config.nix
       ./packages.nix
    ];
    programs.git = {
      enable = true;
      ignores = [
         "*~"
         ".DS_Store"
      ];
      lfs.enable = true;
    } // (
      with config.accounts.email.accounts.primary; {
         signing.key = gpg.key;
         userEmail = address;
         userName = realName;
      }
    );
  }
```

```
\langle \mathit{config/git/packages.nix} \ 191 \rangle {\equiv}
  { lib, pkgs, ... }:
    home.packages = with pkgs; (
         diff-pdf
         git
         git-lfs
         github-cli
         kdiff3
         nix-prefetch-git
         \verb|nix-prefetch-github|
         sops
       ] ++ (
         lib.optionals pkgs.stdenv.isLinux [
           # git-cola
         ]
       ) ++ (
         with gitAndTools; [
           git-crypt
           # gitflow
           hub
           lab
         ]
       ) ++ (
         with nodePackages; [
           codeowners
           diff-so-fancy
      )
    );
  }
```

```
\langle config/git/config.nix 192 \rangle \equiv
  { config, pkgs, ... }:
  {
    programs.git.extraConfig = {
      color = {
        diff-highlight = {
          oldNormal = "red bold";
          oldHighlight = "red bold 52";
          newNormal = "green bold";
          newHighlight = "green bold 22";
        };
        diff = {
          meta = 227;
          frag = "magenta bold";
          commit = "227 bold";
          old = "red bold";
          new = "green bold";
          whitespace = "red reverse";
        };
        status = {
          added = "green";
          changed = "yellow";
          untracked = "cyan";
        };
      };
      commit.template = "${config.xdg.dataHome}/git/commit.template";
      core.pager = "diff-so-fancy | less -tabs=4 -RFX";
      credential = {
        helper = "${pkgs.gitAndTools.pass-git-helper}/bin/pass-git-helper";
        useHttpPath = true;
      };
      diff = {
        sopsdiffer = {
          textconv = "sops -d";
        };
      };
      difftool = {
        pdfdiffer.cmd = "diff-pdf -view \"$LOCAL\" \"$REMOTE\"";
        prompt = false;
        trustExitCode = true;
      };
      pull.ff = "only";
      rerere.enabled = true;
      ui.color = true;
```

```
};

xdg.configFile."pass-git-helper/git-pass-mapping.ini" = {
   source = ./git-pass-mapping.ini;
};

xdg.dataFile."git/commit.template" = {
   source = ./commit.template;
};
}
```

```
\langle config/git/aliases.nix 193 \rangle \equiv
  { config, lib, ... }:
  {
    programs.fish.shellAbbrs = lib.mkIf (config.programs.fish.enable) {
      g = "git";
      gd = "git d";
      gdc = "git dc";
      gm = "git merge";
      gs = "git st";
      gt = "git tree";
    };
    programs.git.aliases = rec {
      ap = "add -p";
      bm = "branch -merged";
      bnm = "branch -no-merged";
      ca = "commit -amend";
      cam = "${ca} -m";
      can = "${ca} -no-edit";
      cans = "${can} -S";
      cas = "${ca} -S";
      casm = "${cas} -m";
      cm = "commit -m";
      cnm = "commit -nm";
      co = "checkout";
      cob = "${co} -b";
      cs = "crypt status";
      cse = "crypt status -e";
      csm = "commit -S -m";
      csu = "crypt status -u";
      d = "diff";
      dc = "diff -cached";
      ds = "diff -stat";
      ffco = "flow feature checkout";
      ffr = "flow feature rebase";
      ffs = "flow feature start";
      frf = "flow release finish";
      frfs = "flow release finish -s";
      frs = "flow release start";
      r = "reset";
      rb = "rebase";
      rba = "rebase -abort";
      rbc = "rebase -continue";
      rbi = "rebase -interactive";
      rbs = "rebase -skip";
      rest = "reset";
      rh = "reset -hard";
      sa = "stash apply";
      sk = "stash -keep-index";
      sl = "stash list";
      sp = "stash pop";
      spa = "stash -patch";
      ss = "stash save";
      st = "status -s";
```

```
stat = "status";
       tree = "log -all -graph -oneline";
    };
  }
GPG
\langle config/gpg.nix 194 \rangle \equiv
  { config, ... }:
  {
    programs.gpg = {
       enable = true;
       settings = {
         default-key = config.accounts.email.accounts.primary.gpg.key;
         keyid-format = "long";
         no-emit-version = true;
      };
    };
    services.gpg-agent = {
       enable = true;
       defaultCacheTtl = 28800;
       enableSshSupport = true;
       maxCacheTt1 = 28800;
    };
  }
htop
\langle config/htop.nix 195 \rangle \equiv
  { ... }:
  {
    programs.htop.enable = true;
  }
i3
\langle config/i3/default.nix 196 \rangle \equiv
                                                                        197⊳
  { config, lib, pkgs, ... }:
  {
```

```
\langle config/i3/default.nix\ 196 \rangle + \equiv
                                                              ⊲196 198⊳
    home.packages = with pkgs; [
      flameshot
      i3lock
      rofi
      rofi-pass
    ];
  To use i3status-rust:
{ pkgs, ... }:
{
  home.packages = with pkgs; [
    font-awesome-ttf
    i3status-rust
  ];
  xsession.windowManager.i3.bars = [
      fonts = [ "Iosevka" "FontAwesome 12" ];
      statusCommand = "${pkgs.i3status-rust}/bin/i3status-rs ${config.xdg.configHome}/i3/status.toml";
      # colors = { ... };
    }
  ];
}
  To use the custom status bar with Spotify metadata:
{ pkgs, ... }:
{
  home.file.".local/bin/i3status".source = ./i3status;
  xsession.windowManager.i3.bars = [
    {
      # fonts = [ ... ];
      statusCommand = "${config.home.homeDirectory}/.local/bin/i3status";
      # colors = { ... };
    }
 ];
}
\langle config/i3/default.nix\ 196 \rangle + \equiv
                                                              ⊲197 199⊳
    services.picom.enable = true;
    xdg.configFile."i3status/config".source = ../i3status/config;
    xdg.dataFile."i3/matrix.png".source = ./matrix.png;
    xsession.enable = true;
    xsession.windowManager.i3 = {
      enable = true;
      config =
        let
```

```
Use Solarized Dark colors. 19
\langle config/i3/default.nix\ 196 \rangle + \equiv
                                                            ⊲198 200⊳
          colors = rec {
            background = "#001e26"; # "#002b36";
            focused = {
              border = "#001e26"; # "#002b36";
              background = "#586e75";
              text = "#fdf6e3";
              indicator = "#268bd2";
              childBorder = ""; # "#285577";
            };
            focusedInactive = {
              border = "#001e26"; # "#002b36";
              background = "#073642";
              text = "#839496";
              indicator = "#073642";
              childBorder = ""; # "#5f676a";
            };
            unfocused = {
              border = "#001e26"; # "#002b36";
              background = "#073642";
              text = "#839496";
              indicator = "#073642";
              childBorder = ""; # "#222222";
            };
            urgent = {
              border = "#001e26"; # "#002b36";
              background = "#dc322f";
              text = "#fdf6e3";
              indicator = "#001e26"; # "#002b36";
              childBorder = ""; # "#900000";
            };
          };
          barColors = {
            inherit (colors) background;
            focusedWorkspace = {
              border = "#b58900";
              background = "#b58900";
              text = "#001e26"; # "#002b36";
            };
            inactiveWorkspace = {
              border = "#073642";
              background = "#001e26"; # "#002b36";
              text = "#839496";
            };
            separator = "#586e75";
            statusline = "#839496";
            urgentWorkspace = {
              border = "#dc322f";
              background = "#dc322f";
              text = "#fdf6e3";
            };
          };
```

19 https://github.com/ tobiaszwaszak/i3wm/blob/9c097f3/ config

```
\langle config/i3/default.nix\ 196 \rangle + \equiv
                                                                  ⊲199
          modifier = "Mod4";
        in
        {
          bars = [
            {
              fonts = [ "Iosevka Term" ];
              statusCommand = "${pkgs.i3status}/bin/i3status";
              colors = barColors;
            }
          ];
          inherit colors;
          fonts = [ "Iosevka 12" ];
          keybindings = lib.mkOptionDefault {
            "XF86MonBrightnessDown" = "exec xbacklight -dec 10";
            "XF86MonBrightnessUp" = "exec xbacklight -inc 10";
            "XF86AudioMute" = "exec -no-startup-id amixer set Master 1+ toggle";
            "XF86AudioLowerVolume" = "exec -no-startup-id amixer set Master 5%-";
            "XF86AudioRaiseVolume" = "exec -no-startup-id amixer set Master 5%+";
            "XF86AudioPrev" = "exec playerctl previous";
            # "XF86AudioPlayPause" = "exec playerctl play-pause";
            "XF86AudioPlay" = "exec playerctl play-pause";
            # "XF86AudioPause" = "exec playerctl play-pause";
            "XF86AudioNext" = "exec playerctl next";
            "${modifier}+Escape" = "
              exec i3lock -i ${config.xdg.dataHome}/i3/matrix.png
            "${modifier}+Shift+grave" = "move scratchpad";
            "${modifier}+Shift+minus" = "move scratchpad";
            "${modifier}+grave" = "scratchpad show";
            "${modifier}+minus" = "scratchpad show";
            "${modifier}+Tab" = "exec -no-startup-id rofi -show window";
            "${modifier}+d" = "
              exec -no-startup-id "rofi -combi-modi run, window, drun -show combi -modi combi"
            "${modifier}+space" = "
              exec -no-startup-id "rofi -combi-modi run, window, drun -show combi -modi combi"
            "Print" = "exec flameshot gui";
          };
          inherit modifier;
          startup = [
            {
              command = "volumeicon";
              notification = false;
          ];
        };
    };
  }
```

#### i3status

```
Use some Solarized Dark colors for good, bad, and
degraded.<sup>20</sup>
                                                                                       20 https://github.com/
                                                                                       tobiaszwaszak/i3wm/blob/9c097f3/
\langle config/i3status/config 201 \rangle \equiv
                                                                            202 \triangleright
                                                                                       i3status.conf
  general {
       colors = true
       color_good = "#859900"
       color_bad = "#dc322f"
       color_degraded = "#cb4b16"
       interval = 5
       output_format = "i3bar"
  }
\langle config/i3status/config 201 \rangle + \equiv
                                                                     ⊲201 203⊳
  order += "path_exists VPN"
  path_exists VPN {
       format = "∅"
       format_down = ""
       path = "/proc/sys/net/ipv4/conf/tun0"
  }
   I usually don't care about SSID.
order += "wireless _first_"
wireless _first_ {
     format_up = "%essid"
\langle config/i3status/config 201 \rangle + \equiv
                                                                     ⊲202 204⊳
  order += "load"
  load {
       format = "%1min %5min %15min"
       format_above_threshold = "∅ %1min %5min %15min ∅"
       max_{threshold} = 9
  order += "battery all"
  battery all {
       format = "%status %percentage %remaining"
   Show the battery percentage without decimals.
\langle \mathit{config/i3status/config~201} \rangle + \equiv
                                                                     ⊲203 205⊳
       integer_battery_capacity = true
   Use the last full capacity, instead of the design capacity. Refer to
the man page<sup>21</sup> for more details.
                                                                                       <sup>21</sup> https://i3wm.org/i3status/
                                                                                       manpage.html#_battery
\langle config/i3status/config 201 \rangle + \equiv
                                                                     ⊲204 206⊳
       last_full_capacity = true
```

```
\langle \mathit{config/i3status/config}\ 201\rangle + \equiv
                                                                    ⊲205 207⊳
       low_threshold = 10
       status_bat = "@"
       status_chr = "4"
       status_full = "\overline"
       status_unk = "\overline"
       threshold_type = "time"
  }
order += "tztime singapore"
tztime singapore {
    format = "DD %a %H:%M"
    hide_if_equals_localtime = true
    locale = "en_SG.utf8"
    timezone = "Asia/Singapore"
}
order += "tztime london"
tztime london {
    format = "00 %a %H:%M"
    hide_if_equals_localtime = true
    locale = "en_GB.utf8"
    timezone = "Europe/London"
}
\langle config/i3status/config 201 \rangle + \equiv
                                                                    ⊲206 208⊳
  order += "tztime trondheim"
  tztime trondheim {
       format = "00 %a %H:%M"
       hide_if_equals_localtime = true
       locale = "nb_NO.UTF-8"
       timezone = "Europe/Oslo"
  }
\langle config/i3status/config 201 \rangle + \equiv
                                                                          ⊲207
  order += "tztime local"
  tztime local {
       format = "∅ %a %d.%m %H:%M:%S"
jq
\langle \mathit{config/jq.nix}\ 209 \rangle {\equiv}
  { ... }:
  {
    programs.jq.enable = true;
  }
```

```
\langle \mathit{config/kitty.nix}\ 210 \rangle {\equiv}
  { pkgs, ... }:
  {
    programs.kitty = {
      enable = true;
      extraConfig = "
        include theme.conf
      ";
      font = {
        name = "Iosevka Term";
        package = (pkgs.nerdfonts.override { fonts = [ "Iosevka" ]; });
      keybindings = {
        "kitty_mod+enter" = "new_window_with_cwd";
         "kitty_mod+k" = "
           combine : clear_terminal scrollback active : send_text normal \x0c
      };
      settings = {
        editor = "emacsclient -nw -a """;
         font_size = 24;
        kitty_mod = "ctrl+shift";
        scrollback_lines = -1;
        shell = ".";
        term = "xterm";
        window_border_width = 0;
      };
    };
    xdg.configFile."kitty/theme.conf".source = builtins.fetchurl {
      url = "https://raw.githubusercontent.com/dexpota/kitty-themes/c4bee86ce8372d3426620e27086d6afa6873a98c/themes/S
      sha256 = "0vwjcyd0asqrbs4437k2b80lqlanl79q03kk4pjnfdf379jklrm4";
    };
  }
man
\langle \mathit{config/man.nix} \ 211 \rangle {\equiv}
  { ... }:
  {
    programs.man.enable = true;
  }
```

```
nixpkgs
\langle \mathit{config/nixpkgs/default.nix} \ 212 \rangle {\equiv}
  { ... }:
  {
     nixpkgs.config = import ./nixpkgs-config.nix;
     xdg.configFile."nixpkgs/config.nix".source = ./nixpkgs-config.nix;
  }
\langle \mathit{config/nixpkgs/nixpkgs\text{-}config.nix}\ 213\rangle {\equiv}
     allowBroken = false;
     allowUnfree = true;
     allowUnsupportedSystem = false;
rebar3
\langle config/rebar3.nix \ 214 \rangle \equiv
  { ... }:
  {
     xdg.configFile."rebar3/rebar.config".text = "
     {plugins, [rebar3_hex]}.
  }
Taskwarrior
Config
\langle config/taskwarrior/default.nix\ 215 \rangle \equiv
                                                                                216 ⊳
  { config, lib, pkgs, ... }:
  {
```

SINCE HOME-MANAGER GENERATES A READ-ONLY .taskrc FILE, and using contexts  $^{22}$  requires Taskwarrior to be able to modify the it, use the following hacky workaround.

22 https://taskwarrior.org/docs/ context.html

Set \$TASKRC to ~/.taskrc-dirty, which must contain at least include ~/.taskrc.

```
\langle config/taskwarrior/default.nix\ 215\rangle +\equiv \\ home.sessionVariables = \{ \\ TASKRC = "~/.taskrc-dirty"; \\ \};
```

Define short Taskwarrior shell aliases.

CONFIGURE TASKWARRIOR, using home-manager<sup>23</sup>.

23 https://github.com/rycee/ home-manager

```
\langle config/taskwarrior/default.nix\ 215\rangle + \equiv
                                                             ⊲217 219⊳
    programs.taskwarrior = {
      enable = true;
      colorTheme = "solarized-dark-256";
      config = {
        context.other = "jiraurl.none or -work";
        context.work = "jiraurl.any or +work";
        uda = {
          jiracreatedts = {
            label = "Created At";
            type = "date";
          };
          jiradescription = {
            label = "Jira Description";
            type = "string";
          jiraestimate = {
            label = "Estimate";
            type = "numeric";
          jirafixversion = {
            label = "Fix Version";
            type = "string";
          };
          jiraid = {
            label = "Jira Issue ID";
            type = "string";
          };
          jiraissuetype = {
            label = "Issue Type";
            type = "string";
          };
          jirastatus = {
            label = "Jira Status";
            type = "string";
          };
          jirasummary = {
            label = "Jira Summary";
            type = "string";
          };
          jiraurl = {
            label = "Jira URL";
            type = "string";
          };
        };
      };
    };
```

exit 100

```
Link the on-exit Git hook. <sup>24</sup>
                                                                                        <sup>24</sup> See next subssection.
\langle config/taskwarrior/default.nix\ 215 \rangle + \equiv
                                                                             ⊲218
     xdg.dataFile."task/hooks/on-exit-git.sh" = {
       executable = true;
       source = ./on-exit-git.sh;
     };
  }
on-exit Git hook
FIRST, use a fairly portable Bash shebang, and be safe.<sup>25</sup>
                                                                                        ^{25} -exit immediately upon fail-
                                                                                        ure, treat -Unset variables as an
\langle config/taskwarrior/on-exit-qit.sh \ 220 \rangle \equiv
                                                                             221 ⊳
                                                                                        error, disable -file globbing, and
  #! /usr/bin/env bash
                                                                                        fail if any part of a pipeline fails
                                                                                        (-o pipefail).
  set -eufo pipefail
   Run in debug mode<sup>26</sup>, if the environment variable DEBUG is nonempty.
                                                                                       ^{26} i.e. echo commands
\langle config/taskwarrior/on-exit-git.sh\ 220 \rangle + \equiv
                                                                      ⊲220 222⊳
  if [ -n "${DEBUG:-}" ]; then
       set -x
  fi
Parse the command line arguments.
   Don't include the api version, rc file, or Taskwarrior version.
                                                                                        N.B. The positional arguments are
                                                                                        formatted as foo:bar, where foo is
i="${1#api:}"
                                                                                        the name of the argument, and {\sf bar} is
                                                                                        the value.
="${4#rc:}"
rsion="${6#version:}"
   Parse and store the values of the arguments, args, command, and
data directory.
\langle config/taskwarrior/on-exit-git.sh\ 220 \rangle + \equiv
                                                                      ⊲221 223⊳
  args="${2#args:}"
  command="${3#command:}"
  data="${5#data:}"
THROUGHOUT THIS SCRIPT, run git as if it were started in the
Taskwarrior data directory, i.e. git -C "$data".
                                                                                        If there are no changes, exit suc-
                                                                                        cessfully, printing an informative
\langle config/taskwarrior/on\text{-}exit\text{-}git.sh~220 \rangle + \equiv
                                                                      ⊲222 224⊳
                                                                                        message if running in debug mode.
  if git -C "$data" diff -quiet; then
                                                                                        git diff exits with status code 8 if
       if [ -n "${DEBUG:-}" ]; then
                                                                                        there are no differences between the
            echo 'No changes to commit'
                                                                                        working tree and the index.
       fi
       exit 0
   If present, stage the changes or die trying.
\langle config/taskwarrior/on-exit-git.sh\ 220 \rangle + \equiv
                                                                      △223 225▷
  elif ! git -C "$data" add -A; then
       echo 'Failed to add files to the index'
```

Try to commit the changes, or else.

fi

```
\langle \mathit{config/taskwarrior/on\text{-}\mathit{exit\text{-}\mathit{git}.sh~220}}\rangle + \equiv
                                                                           ⊲224 226⊳
  elif ! git -C "$data" commit -qm "$command: ${args#task $command}"; then hanges.
        echo 'Failed to record changes to the repository'
        exit 101
   If running in debug mode, print a brief summary of the commit.
\langle config/taskwarrior/on-exit-git.sh\ 220 \rangle + \equiv
                                                                                  \triangleleft 225
  elif [ -n "${DEBUG:-}" ]; then
       git -C "$data" log -oneline -1
```

Quietly store the current contents of the index in a new commit, along with a log message describing the

# Glossary

module "Each NixOS module is a file that handles one logical aspect of the configuration, such as a specific kind of hardware, a service, or network settings."  $^{27}\,$  5, 6, 11

 $^{\rm 27}\,\rm https://nixos.org/nixos/manual/index.html #sec-writing-modules$ 

# A cronyms

LUKSLinux Unified Key Setup 6, 11

## Bibliography

abbr - manage fish abbreviations. URL https://fishshell.com/docs/current/cmds/abbr.html.

Andrew Gallant. rg - man page. URL https://www.mankier.com/1/rg.

Rafael J. Wysocki. CPU Performance Scaling - The Linux Kernel documentation. URL https://www.kernel.org/doc/html/v4.19/admin-guide/pm/cpufreq.html#cpu-performance-scaling-in-linux.

## To-Do

FIXME	6
Figure out wtf is going on here	6
Describe the location module	11
btrfs clean boot?	12
Configure Vim	15
Dig through https://github.com/mathiasbynens/dotfiles/	
blob/master/.macos	28
link	57