# **ERIC BAILEY**

# DOTFILES

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## 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⟩
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      ⟨Tweak hardware config 8⟩
      ⟨Configure Bluetooth 9⟩
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      \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⊳
  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
```

}

```
(18) ⊲23 25⊳
\langle Add \ some \ more \ user \ packages \ 21 \rangle + \equiv
      nixpkgs-unstable.zoom-us
\langle Add \ some \ more \ user \ packages \ 21 \rangle + \equiv
                                                                                              (18) \triangleleft 24
   ];
SRUXPS
NixOS configuration
The SRUXPS configuration is an expression that takes, at least,
config, lib, and pkgs.
\langle machines/sruxps/configuration.nix 26 \rangle \equiv
   { config, lib, pkgs, ... }:
      username = "e.bailey";
   in
   {
      \langle Import\ hardware\ config\ and\ modules\ 27 \rangle
      \langle Set~the~location~to~MSP~28 \rangle
      \langle Configure \ the \ LUKS \ devices \ 29 \rangle
      \langle Configure\ vm.swappiness\ 30 \rangle
      \langle Add \ the \ coretemp \ kernel \ module \ 31 \rangle
      \langle Link\ some\ extra\ paths\ 32 \rangle
      \langle Configure \ the \ file \ systems \ 33 \rangle
      \langle Configure\ Bluetooth\ 35 \rangle
      ⟨Configure home-manager 36⟩
      \langle Configure\ networking\ 37 \rangle
      \langle Configure\ Nix\ 38 \rangle
      \langle \mathit{Configure\ overlays\ 39} \rangle
      \langle \mathit{Configure}\ \mathit{sudo}\ 40 \rangle
      \langle Configure \ services \ 41 \rangle
      \langle Configure \ user \ 42 \rangle
```

Import the hardware config and other Nix modules.

```
\langle Import\ hardware\ config\ and\ modules\ 27 \rangle \equiv
                                                                           (26)
  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 \ 28 \rangle \equiv
                                                                           (26)
  airportCode = "MSP";
   Configure the LUKS devices.
\langle Configure \ the \ LUKS \ devices \ 29 \rangle \equiv
                                                                           (26)
  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\ 30 \rangle \equiv
                                                                           (26)
  boot.kernel.sysctl = {
     "vm.swappiness" = 1;
  };
\langle Add \ the \ coretemp \ kernel \ module \ 31 \rangle \equiv
                                                                           (26)
  boot.kernelModules = [
     "coretemp"
  ];
\langle Link \ some \ extra \ paths \ 32 \rangle \equiv
                                                                           (26)
  environment.homeBinInPath = true;
  environment.pathsToLink = [
     "/lib/aspell"
     "/share/emacs/site-lisp"
     "/share/fish"
     # FIXME: "/share/icons"
  ];
```

btrfs clean boot?

```
\langle Configure \ the \ file \ systems \ 33 \rangle \equiv
                                                                  (26) 34 ⊳
  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 \ 33 \rangle + \equiv
                                                                  (26) ⊲33
  fileSystems."/mnt/music" = {
    device = "192.168.1.147:/volume1/homes/eric/music";
    fsType = "nfs";
    options = [ "noatime" "noauto" "rw" "x-systemd.automount" ];
  };
\langle Configure \ Bluetooth \ 35 \rangle \equiv
                                                                       (26)
  hardware.bluetooth = {
    enable = true;
    config = {
      General = {
        Enable = "Source, Sink, Media, Socket";
      };
    };
  };
\langle Configure\ home-manager\ 36 \rangle \equiv
                                                                       (26)
  home-manager.useUserPackages = true;
  home-manager.users."${username}" = args:
    import ./home.nix (args // { inherit pkgs; });
\langle Configure\ networking\ 37 \rangle \equiv
                                                                       (26)
  networking.hostName = "MSP-EBAILEY01";
  networking.interfaces.wlp1s0.useDHCP = true;
  networking.useDHCP = false; # NOTE: Deprecated, so set it false.
```

```
\langle Configure\ Nix\ 38 \rangle \equiv
                                                                         (26)
  nix = {
    nixPath = [
       "nixos-config=/etc/nixos/configuration.nix"
       "nixpkgs-overlays=/etc/nixos/overlays"
    ];
    trustedUsers = [ "root" username ];
  };
\langle Configure \ overlays \ 39 \rangle \equiv
                                                                          (26)
  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 \ 40 \rangle \equiv
                                                                          (26)
  security.sudo = {
    enable = true;
    extraConfig = "
       ${username} ALL=(ALL) NOPASSWD: ALL
  };
\langle Configure \ services \ 41 \rangle \equiv
                                                                         (26)
  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 \mathit{Configure user 42} \rangle \equiv
                                                                         (26)
  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 \ 43 \rangle \equiv
  { lib, pkgs, ... }:
  let
    nixpkgs-unstable = import (import ../../nix/sources.nix).nixpkgs-unstable {
       config.allowUnfree = true;
    };
  in
  {
    \langle Import\ various\ program\ configs\ 44 \rangle
    ⟨Configure the primary email account 45⟩
    \langle Install\ some\ user\ packages\ 46 \rangle
    _module.args.pkgs = lib.mkForce pkgs;
  }
```

```
\langle Import\ various\ program\ configs\ 44 \rangle \equiv
                                                                            (43)
  imports = [
     ../../config/bash.nix
     ../../config/bat.nix
     ../../config/browserpass.nix
     ../../config/bugwarrior.nix
     ../../config/direnv.nix
     ../../config/dunst
     ../../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 \ 45 \rangle \equiv
                                                                            (43)
  accounts.email.accounts.primary = {
    address = "e.bailey@sportradar.com";
    gpg.key = "EFD6F1EDC84D2FA935E38570462054AB8B682702";
    primary = true;
    realName = "Eric Bailey";
  };
\langle Install\ some\ user\ packages\ 46 \rangle \equiv
                                                                       (43) 47⊳
  home.packages = with pkgs; (
    Γ
       aws-iam-authenticator
       ec2instanceconnectcli
\langle Install\ some\ user\ packages\ 46 \rangle + \equiv
                                                                  (43) ⊲46 48⊳
       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\ 46 \rangle + \equiv
                                                                  (43) \triangleleft 47 \ 50 \triangleright
       clementine # FIXME: Unfree
  I haven't used Dhall in a while, but it's still interesting.
⟨ * 49⟩≡
                                                                            55 ⊳
       dhall
       dhall-json
```

```
I might need Docker Compose<sup>5</sup> again someday, but not lately.
                                                                                                       <sup>5</sup> https://docs.docker.com/compose/
\langle Install\ some\ user\ packages\ 46 \rangle + \equiv
                                                                              (43) ⊲48 51⊳
         docker-compose
\langle Install\ some\ user\ packages\ 46 \rangle + \equiv
                                                                              (43) \triangleleft 50 \quad 52 \triangleright
   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\ 46 \rangle + \equiv
                                                                               (43) ⊲51 53⊳
         jdk
   https://github.com/Azure/kubelogin
\langle Install\ some\ user\ packages\ 46 \rangle + \equiv
                                                                              (43) \triangleleft 52 \quad 54 \triangleright
         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\ 46 \rangle + \equiv
                                                                              (43) \triangleleft 53 \quad 56 \triangleright
        naal
         networkmanager-openconnect
   It would be cool to play with Next<sup>8</sup> some lazy day.
                                                                                                       8 https://next.atlas.engineer/
⟨* 49⟩+≡
                                                                                           ⊲49
         next
\langle Install\ some\ user\ packages\ 46 \rangle + \equiv
                                                                              (43) \triangleleft 54 \ 57 \triangleright
         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\ 46 \rangle + \equiv
                                                                              (43) ⊲ 56 58 ⊳
         pavucontrol
         renderizer
         SCC
         lm_sensors
         nfs-utils
        libnotify
         dunst
         paper-icon-theme
   Try to improve battery life.
\langle Install\ some\ user\ packages\ 46 \rangle + \equiv
                                                                              (43) \triangleleft 57 59 \triangleright
         powertop
   Install Tomb<sup>10</sup> and related packages.
                                                                                                       10 https://www.dyne.org/software/
                                                                                                       tomb/
\langle Install\ some\ user\ packages\ 46 \rangle + \equiv
                                                                              (43) ⊲58 60⊳
         tomb
         file
         1sof
```

More Trondheim wireless debugging...

```
⟨Install some user packages 46⟩+≡
    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 61 \rangle \equiv
                                                                         62 ⊳
  { 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 61 \rangle + \equiv
                                                                    ⊲61 63 ⊳
    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 61 \rangle + \equiv
                                                                    ⊲62 64⊳
                                                                                  Iosevka
    fonts = {
       enableFontDir = true;
       fonts = with pkgs; [
         (nerdfonts.override { fonts = [ "Iosevka" ]; })
       ];
    };
   Enable system-wide Bash completion.
\langle modules/common.nix 61 \rangle + \equiv
                                                                    463 65 ⊳
    programs.bash.enableCompletion = true;
```

```
\langle modules/common.nix \; 61 \rangle + \equiv
                                                                          ⊲64
Packages
\langle modules/packages.nix 66 \rangle \equiv
                                                                          67⊳
  { lib, pkgs, ... }:
  {
\langle modules/packages.nix 66 \rangle + \equiv
                                                                     ⊲66 68⊳
    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 \; 66 \rangle + \equiv
                                                                        ⊲67 69⊳
            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 66 \rangle + \equiv
                                                                        ⊲68 70⊳
         tree
         unzip
         vim
         watch
         # wipe
       ]
\langle modules/packages.nix 66 \rangle + \equiv
                                                                        ⊲69 71⊳
     ) ++ (
       with haskellPackages; [
         cabal-install
         cabal2nix
         hpack
         # FIXME: stylish-haskell
       ]
\langle modules/packages.nix 66 \rangle + \equiv
                                                                        ⊲70 72⊳
     ) ++ (
       with nodePackages; [
         # TODO: bash-language-server
       ]
\langle modules/packages.nix 66 \rangle + \equiv
                                                                        ⊲71 73⊳
     ) ++ (
       with python3Packages; [
         pygments
       ]
```

```
\langle modules/packages.nix 66 \rangle + \equiv
                                                                           ⊲72 74⊳
     ) ++ lib.optionals stdenv.isDarwin (
       clementine
          m-cli
          sourcetree
          onyx
       ] ++ (
          with chunkwm; [
            core
            ffm
            tiling
          ]
       )
\langle \mathit{modules/packages.nix} \ 66 \rangle + \equiv
                                                                           ⊲73 75⊳
     ) ++ lib.optionals stdenv.isLinux [
       gnome3.networkmanagerapplet
       hicolor-icon-theme
       keybase-gui
       libreoffice
       qpdfview
       playerctl
       psmisc
\langle \mathit{modules/packages.nix} \ 66 \rangle + \equiv
                                                                           ⊲74 76⊳
       (
          (import <nixpkgs-unstable> { config.allowUnfree = true; }).signal-desktop.override {
            spellcheckerLanguage = "en_US";
          }
       )
\langle modules/packages.nix 66 \rangle + \equiv
                                                                           ⊲75 77⊳
       thunderbird
       volumeicon
       xclip
       xorg.xbacklight
     ];
\langle modules/packages.nix 66 \rangle + \equiv
                                                                                ⊲76
  }
Location
\langle modules/location.nix 78 \rangle \equiv
                                                                                79⊳
  { config, lib, ... }:
\langle modules/location.nix~78\rangle + \equiv
                                                                           ⊲78 80⊳
  let
     airportCode = config.airportCode;
  in
  {
```

```
\langle modules/location.nix 78 \rangle + \equiv
                                                                    ⊲79 81⊳
    options.airportCode = lib.mkOption {
      default = "MSP";
      type = lib.types.enum [ "ATL" /* "LHR" */ "LJU" "MSP" "TRD" ];
    };
\langle modules/location.nix 78 \rangle + \equiv
                                                                     ⊲80 82⊳
    config = lib.mkMerge [
  The Sportradar office in Minneapolis.
\langle modules/location.nix 78 \rangle + \equiv
                                                                     ⊲81 83⊳
         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~78\rangle + \equiv
                                                                     ⊲82 84⊳
         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 78 \rangle + \equiv
                                                                     ⊲83 85⊳
         lib.mkIf (airportCode = "LHR") {
           location = {
             latitude = 51.51;
              longitude = -0.09;
           time.timeZone = "Europe/London";
         }
      )
  The Sportradar office in Ljubljana.
\langle modules/location.nix 78 \rangle + \equiv
                                                                     ⊲84 86⊳
         lib.mkIf (airportCode = "LJU") {
           location = {
             latitude = 46.09;
              longitude = 14.55;
           };
           time.timeZone = "Europe/Ljubljana";
         }
       )
```

```
The Sportradar office in Trondheim.
\langle modules/location.nix 78 \rangle + \equiv
                                                                           ⊲85 87⊳
          lib.mkIf (airportCode = "TRD") {
            location = {
               latitude = 63.43;
               longitude = 10.40;
            time.timeZone = "Europe/Oslo";
          }
       )
\langle modules/location.nix~78\rangle + \equiv
                                                                                ⊲86
     ];
  }
NixOS
\langle modules/nixos.nix 88 \rangle \equiv
                                                                                89⊳
  { pkgs, ... }:
  {
\langle modules/nixos.nix \ 88 \rangle + \equiv
                                                                           ⊲88 90⊳
     boot = {
       cleanTmpDir = true;
       loader = {
          systemd-boot.enable = true;
          efi.canTouchEfiVariables = true;
       };
     };
\langle modules/nixos.nix \ 88 \rangle + \equiv
                                                                           ⊲89 91⊳
     # console.font = "latarcyrheb-sun32";
     console.font = "Lat2-Terminus16";
     console.keyMap = "us";
     i18n.defaultLocale = "en_US.UTF-8";
\langle modules/nixos.nix \ 88 \rangle + \equiv
                                                                           ⊲90 92⊳
     location.provider = "manual";
\langle modules/nixos.nix 88 \rangle + \equiv
                                                                           ⊲91 93⊳
     networking.networkmanager.enable = true;
\langle modules/nixos.nix \ 88 \rangle + \equiv
                                                                           ⊲92 94⊳
     nixpkgs.config.allowUnfree = true;
```

```
\langle modules/nixos.nix \ 88 \rangle + \equiv
                                                                 ⊲93 95⊳
    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 \ 88 \rangle + \equiv
                                                                      ⊲94 96⊳
       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 \ 88 \rangle + \equiv
                                                                      ⊲95 97⊳
    hardware.pulseaudio = {
       enable = true;
       extraModules = [ pkgs.pulseaudio-modules-bt ];
       package = pkgs.pulseaudioFull;
     };
     sound.enable = true;
\langle modules/nixos.nix \ 88 \rangle + \equiv
                                                                      ⊲96 98⊳
     system.stateVersion = "20.09";
\langle modules/nixos.nix \ 88 \rangle + \equiv
                                                                      ⊲97 99⊳
     virtualisation.docker.enable = true;
\langle modules/nixos.nix \ 88 \rangle + \equiv
                                                                           ⊲98
```

#### Darwin

```
\langle modules/darwin.nix \ 100 \rangle \equiv
                                                                    101 ⊳
  { pkgs, ... }:
  {
\langle modules/darwin.nix \ 100 \rangle + \equiv
                                                              ⊲100 102⊳
    nixpkgs.config.allowUnfree = true;
\langle modules/darwin.nix \ 100 \rangle + \equiv
                                                              ⊲101 103⊳
    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\ 100 \rangle + \equiv
                                                            ⊲102 104⊳
    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\ 100\rangle + \equiv
                                                            ⊲103 105⊳
    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 100 \rangle + \equiv
                                                            ⊲104 106⊳
    system.defaults.dock = {
      autohide = true;
      mru-spaces = false;
      orientation = "right";
      showhidden = true;
```

```
\langle modules/darwin.nix\ 100\rangle + \equiv \\ \text{system.defaults.finder} = \{ \\ \text{AppleShowAllExtensionS} = \text{true}; \\ \text{FXEnableExtensionChangeWarning} = \text{false}; \\ \text{QuitMenuItem} = \text{true}; \\ \}; \\ \\ \langle modules/darwin.nix\ 100\rangle + \equiv \\ \text{system.defaults.trackpad.Clicking} = \text{true}; \\ \\ \langle modules/darwin.nix\ 100\rangle + \equiv \\ \langle modules/darwin
```

# Software configuration

**}**;

}

```
Bash
Enable the Bash module, as well as autojump.
\langle config/bash.nix 109 \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 \ 110 \rangle \equiv
                                                                                   111 ⊳
  { ... }:
  {
     programs.bat = {
        enable = true;
        config = {
   For the pager, use less.
\langle \mathit{config/bat.nix} \ 110 \rangle + \equiv
                                                                            ⊲110 112⊳
          pager = "less -FR";
   Set the style to changes.
\langle config/bat.nix 110 \rangle + \equiv
                                                                            ⊲111 113⊳
          style = "changes";
   Use the Monokai Extended theme.
\langle config/bat.nix \ 110 \rangle + \equiv
                                                                            ⊲112 114⊳
          theme = "Monokai Extended";
\langle \mathit{config/bat.nix} \ 110 \rangle + \equiv
                                                                                   ⊲113
       };
```

### Browserpass

```
\langle config/browserpass.nix \ 115 \rangle \equiv
  { pkgs, ... }:
  {
    home.packages = with pkgs; [
       browserpass
     ];
    programs.browserpass = {
       enable = true;
       browsers = [ "firefox" ];
    };
  }
```

## bugwarrior

```
\langle \mathit{config/bugwarrior}.\mathit{nix}\ 116 \rangle {\equiv}
                                                                                           117⊳
   { config, pkgs, ... }:
   {
\langle config/bugwarrior.nix\ 116 \rangle + \equiv
                                                                                   ⊲116 118⊳
     home.packages = with pkgs; [
        bugwarrior
      ];
\langle \mathit{config/bugwarrior}.\mathit{nix}\ 116 \rangle + \equiv
                                                                                   ⊲117 119⊳
      imports = [
         ./password-store.nix
         ./taskwarrior
        ./password-store.nix
      ];
```

```
\langle config/bugwarrior.nix \ 116 \rangle + \equiv
                                                                 ⊲118 120⊳
    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}\ 116 \rangle + \equiv
                                                                       ⊲119
direnv
\langle \mathit{config/direnv.nix}\ 121 \rangle {\equiv}
  { ... }:
  {
    programs.direnv = {
      enable = true;
      enableZshIntegration = false;
    };
  }
```

#### Emacs

```
\langle config/emacs/default.nix 122 \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 123 \rangle \equiv
                                                                       124 ⊳
  { ... }:
  {
    programs.emacs.extraPackages = epkgs: with {
      elpa = epkgs.elpaPackages;
      melpa = epkgs.melpaPackages;
       melpaStable = epkgs.melpaStablePackages;
      # org = epkgs.orgPackages;
    }; (
\langle \mathit{config/emacs/packages.nix} \ 123 \rangle + \equiv
                                                                 ⊲ 123 125 ⊳
      with elpa; [
        mmm-mode
         rainbow-mode
       ]
```

```
\langle \mathit{config/emacs/packages.nix} \ 123 \rangle + \equiv
                                                              ⊲124 126⊳
    ) ++ (
      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} \ 123 \rangle + \equiv
                                                                                 ⊲125
       with melpaStable; [
          ess
        ]
     );
  }
Init File
\langle config/emacs/init.el \ 127 \rangle \equiv
                                                                                 128⊳
  (server-start)
\langle config/emacs/init.el~127 \rangle + \equiv
                                                                          ⊲127 129⊳
  (setq server-window 'pop-to-buffer-same-window)
\langle config/emacs/init.el\ 127 \rangle + \equiv
                                                                          ⊲128 130⊳
  (column-number-mode 1)
\langle config/emacs/init.el~127 \rangle + \equiv
                                                                          ⊲129 131⊳
  (add-to-list 'exec-path "/run/current-system/sw/bin")
\langle config/emacs/init.el~127 \rangle + \equiv
                                                                          ⊲130 132⊳
  (menu-bar-mode 0)
   (scroll-bar-mode 0)
  (tool-bar-mode 0)
\langle config/emacs/init.el~127 \rangle + \equiv
                                                                          ⊲131 133⊳
  (let ((font "Iosevka-10"))
     (set-face-attribute 'default t :font font)
     (set-frame-font font nil t))
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                          ⊲132 134⊳
  (require 'package)
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                          ⊲133 135⊳
  (setq-default frames-only-mode t
                    indent-tabs-mode nil
                    package-archives nil
                    package-enable-at-startup nil)
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                          ⊲134 136⊳
   (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 127 \rangle + \equiv
                                                              ⊲135 137⊳
  (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~127} \rangle + \equiv
                                                              ⊲136 138⊳
  (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 127 \rangle + \equiv
                                                              ⊲137 139⊳
  (dolist (pattern '("^\\(/dev/shm/\\|/tmp/\\)"
                      "\.\(enc\)\
    (add-to-list 'auto-mode-alist (cons pattern 'sensitive-mode)))
\langle config/emacs/init.el 127 \rangle + \equiv
                                                              ⊲138 140⊳
  (setq custom-file "~/.emacs.d/private/local/custom.el")
```

```
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                      ⊲139 141⊳
  (load-theme 'wombat)
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                      ⊲140 142⊳
  (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~127} \rangle + \equiv
                                                                      ⊲141 143⊳
                                   "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 127 \rangle + \equiv
                                                                      ⊲142 144⊳
  (setq-default fill-column 80)
\langle config/emacs/init.el~127 \rangle + \equiv
                                                                      ⊲143 145⊳
  (org-babel-do-load-languages
    'org-babel-load-languages
    '((shell . t)))
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                      ⊲144 146⊳
   (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~127 \rangle + \equiv
                                                                      ⊲145 147⊳
  (use-package crux
     :demand
     :config (global-set-key (kbd "C-a") 'crux-move-beginning-of-line))
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                      ⊲146 148⊳
   (use-package editorconfig
     :ensure t
     :config
     (editorconfig-mode 1))
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                      ⊲147 149⊳
   (use-package emojify)
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                      ⊲148 150⊳
  (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 127 \rangle + \equiv
                                                                      ⊲149 151⊳
  (use-package hl-todo
     :demand
     :config (global-hl-todo-mode t))
```

```
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                       ⊲150 152⊳
  (use-package magit
     :demand
     :config (global-magit-file-mode t))
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                       ⊲151 153⊳
  (use-package multiple-cursors
     :demand
     :config (global-set-key (kbd "C-S-c C-S-c") 'mc/edit-lines))
\langle config/emacs/init.el~127 \rangle + \equiv
                                                                       ⊲ 152 154 ⊳
  (use-package nix-mode
     :mode ("\\.nix\\'"))
\langle \mathit{config/emacs/init.el~127} \rangle + \equiv
                                                                       ⊲153 155⊳
  (use-package noweb-mode
     :load-path "/run/current-system/sw/share/emacs/site-lisp"
     :mode ("\\.nw\\'")
     :demand)
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                       ⊲154 156⊳
  (use-package nyan-mode
     :demand
     :config (nyan-mode 1))
\langle config/emacs/init.el~127 \rangle + \equiv
                                                                       ⊲155 157⊳
  (use-package robe
     :demand
     :mode ("\\.rb\\'"))
\langle config/emacs/init.el~127 \rangle + \equiv
                                                                       ⊲156 158⊳
  (use-package rvm
     :ensure t)
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                       ⊲157 159⊳
  (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~127 \rangle + \equiv
                                                                       ⊲158 160⊳
  (use-package tuareg
     :mode ("\\.ml\\'" "\\.mli\\'"))
\langle config/emacs/init.el 127 \rangle + \equiv
                                                                              ⊲159
  (use-package whitespace-cleanup-mode
     :demand
     :config (global-whitespace-cleanup-mode t))
```

```
Firefox
```

```
\langle config/firefox.nix \ 161 \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\ 162 \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/
\langle config/fish/abbrs.nix 163 \rangle \equiv
                                                                                                    current/cmds/abbr.html
```

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

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 \ 164 \rangle \equiv
                                                                                          (163)
   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 \ 165 \rangle \equiv
                                                                       (163)
  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 \ 166 \rangle \equiv
                                                                               (163)
  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 \ 167 \rangle \equiv
                                                                                               (163) 168 ⊳
   rg = "rg -S";
\langle ripgrep \ fish \ abbreviations \ 167 \rangle + \equiv
                                                                                      (163) \triangleleft 167 \ 169 \triangleright
   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 \ 167 \rangle + \equiv
                                                                                       (163) ⊲168 170⊳
```

```
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: hubble
- name: kibana
- name: kube-resource-report
- name: metrics-server
- name: nginx-ingress-core
- name: prometheus-operator
\langle ripgrep \ fish \ abbreviations \ 167 \rangle + \equiv
                                                                 (163) \triangleleft 169
  rgn = "rg -no-heading";
\langle config/fish/aliases.nix 171 \rangle \equiv
  { ... }:
  {
    programs.fish.shellAliases = rec {
       gpg = "gpg2";
```

k = "clear";

**}**;

}

1 = "exa -color=auto -G"; 11 = "exa -color=auto -Gla";

pbcopy = "xclip -sel clipboard"; pbpaste = "\${pbcopy} -o";

# Old Darwin habits

<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

```
\langle \mathit{config/fish/shellInit.fish} \ 172 \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\ 173 \rangle \equiv
                                                                     174 ⊳
  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\ 173 \rangle + \equiv
                                                                  ⊲173 175⊳
  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\ 173 \rangle + \equiv
                                                                  ⊲174 176⊳
  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\ 173 \rangle + \equiv
                                                                  ⊲175 177⊳
  command -sq fluidsynth; and function playmidi
       fluidsynth -i ~/lib/arachno-soundfont/Arachno\ SoundFont\ -\ Version\ 1.0.sf2 $argv
  end
\langle config/fish/interactiveShellInit.fish\ 173 \rangle + \equiv
                                                                  ⊲176 178⊳
  command -sq kitty; and function icat
       kitty +kitten icat $argv
  end
\langle \mathit{config/fish/interactiveShellInit.fish~173}\rangle + \equiv
                                                                  ⊲177 179⊳
  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~173}\rangle + \equiv
                                                                  ⊲178 180⊳
  # FIXME: functions rvm >/dev/null 2>&1; and rvm default
\langle config/fish/interactiveShellInit.fish\ 173 \rangle + \equiv
                                                                 ⊲179 181⊳
  set fish_greeting
```

```
\label{eq:config} $$ \langle config/fish/interactiveShellInit.fish\ 173\rangle + \equiv $$ < 0$ command -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\ 182 \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} \ 183 \rangle \equiv
                                                                   184 ⊳
                                                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
```

```
⊲183 185⊳
  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\ 183 \rangle + \equiv
                                                           ⊲184 186⊳
                                                ----- [ 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} \ 183 \rangle + \equiv
                                                        ⊲185 187⊳
                                     ———— [ 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} \ 183 \rangle + \equiv
                                                                    ⊲186
                                              -- [ 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 \ 188 \rangle \equiv
  { ... }:
  {
    programs.fzf = {
      enable = true;
       enableZshIntegration = false;
    };
  }
```

#### Git

```
\langle \mathit{config/git/default.nix}\ 189 \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} \ 190 \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 191 \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 192 \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 193 \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 194 \rangle \equiv
  { ... }:
  {
    programs.htop.enable = true;
  }
i3
\langle config/i3/default.nix 195 \rangle \equiv
                                                                        196⊳
  { config, lib, pkgs, ... }:
  {
```

```
\langle config/i3/default.nix 195 \rangle + \equiv
                                                              ⊲ 195 197 ⊳
    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\ 195\rangle + \equiv
                                                              ⊲196 198⊳
    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\ 195\rangle + \equiv
                                                            ⊲197 199⊳
          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 \mathit{config/i3/default.nix}\ 195 \rangle + \equiv
                                                                  ⊲198
          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;
          ];
        };
    };
  }
```

```
i\Im status
```

```
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 200 \rangle \equiv
                                                                            201 \triangleright
                                                                                       i3status.conf
  general {
       colors = true
       color_good = "#859900"
       color_bad = "#dc322f"
       color_degraded = "#cb4b16"
       interval = 5
       output_format = "i3bar"
  }
\langle config/i3status/config 200 \rangle + \equiv
                                                                     ⊲200 202⊳
  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\ 200\rangle + \equiv
                                                                     ⊲201 203⊳
  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}\ 200\rangle + \equiv
                                                                     ⊲202 204⊳
       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 200 \rangle + \equiv
                                                                     ⊲ 203 205 ⊳
       last_full_capacity = true
```

```
\langle \mathit{config/i3status/config}\ 200\rangle + \equiv
                                                                     ⊲204 206⊳
       low_threshold = 10
       status_bat = "\overline"
       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 200 \rangle + \equiv
                                                                     ⊲205 207⊳
  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 200 \rangle + \equiv
                                                                           ⊲206
  order += "tztime local"
  tztime local {
       format = "∅ %a %d.%m %H:%M:%S"
jq
\langle \mathit{config/jq.nix}\ 208 \rangle {\equiv}
  { ... }:
  {
    programs.jq.enable = true;
  }
```

```
\langle \mathit{config/kitty.nix}\ 209 \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}\ 210 \rangle {\equiv}
  { ... }:
  {
    programs.man.enable = true;
  }
```

```
nixpkgs
\langle \mathit{config/nixpkgs/default.nix} \ 211 \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} \ 212 \rangle {\equiv}
     allowBroken = false;
     allowUnfree = true;
     allowUnsupportedSystem = false;
rebar3
\langle config/rebar3.nix \ 213 \rangle \equiv
  { ... }:
  {
     xdg.configFile."rebar3/rebar.config".text = "
     {plugins, [rebar3_hex]}.
  }
Taskwarrior
Config
\langle config/taskwarrior/default.nix\ 214 \rangle \equiv
                                                                                215⊳
  { 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.

Define short Taskwarrior shell aliases.

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

 $\langle config/taskwarrior/default.nix\ 214\rangle + \equiv$ ⊲216 218⊳ 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";

**}**; **}**; **}**; **}**;

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

exit 100

```
Link the on-exit Git hook. <sup>24</sup>
                                                                                        <sup>24</sup> See next subssection.
\langle config/taskwarrior/default.nix\ 214 \rangle + \equiv
                                                                             ⊲217
     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\ 219 \rangle \equiv
                                                                             220 ⊳
                                                                                        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\ 219 \rangle + \equiv
                                                                      ⊲219 221⊳
  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\ 219 \rangle + \equiv
                                                                      ⊲220 222⊳
  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~219 \rangle + \equiv
                                                                      ⊲221 223⊳
                                                                                        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\ 219 \rangle + \equiv
                                                                      △222 224▷
  elif ! git -C "$data" add -A; then
       echo 'Failed to add files to the index'
```

Try to commit the changes, or else.

```
\langle \mathit{config/taskwarrior/on\text{-}\mathit{exit\text{-}\mathit{git}.sh~219}}\rangle + \equiv
                                                                           ⊲223 225⊳
  elif ! git -C "$data" commit -qm "$command: ${args#task $command}"; then hanges.
        echo 'Failed to record changes to the repository'
        exit 101
   If running in debug mode, print a brief summary of the commit.
\langle config/taskwarrior/on-exit-git.sh\ 219 \rangle + \equiv
                                                                                  \triangleleft 224
  elif [ -n "${DEBUG:-}" ]; then
       git -C "$data" log -oneline -1
  fi
```

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

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## To-Do

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