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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, ... }:
   let
      username = "yurrriq";
   in
   {
      (Set the location to MSP 2)
      ⟨Blacklist a few kernel modules 3⟩
      \langle Configure \ the \ LUKS \ device \ 4 \rangle
      \langle Configure \ the \ environment \ 5 \rangle
      ⟨Configure the file systems 6⟩
      \langle Tweak \ hardware \ config \ 7 \rangle
      \langle Configure\ Bluetooth\ 8 \rangle
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      ⟨Configure Nix 12⟩
      \langle Configure \ sudo \ 13 \rangle
      \langle Configure \ X \ Server \ 14 \rangle
      \langle Configure \ sops-nix \ 15 \rangle
      \langle Configure \ user \ 16 \rangle
   Configure the module.
                                                                                                   FIXME
\langle Set \ the \ location \ to \ MSP \ 2 \rangle \equiv
                                                                                           (1)
   airportCode = "MSP";
\langle Blacklist\ a\ few\ kernel\ modules\ 3 \rangle \equiv
   boot.blacklistedKernelModules = [ "nouveau" "nvidia" "psmouse"
   Configure the LUKS^1 devices.
\langle Configure \ the \ LUKS \ device \ 4 \rangle \equiv
                                                                                           (1)
   boot.initrd.luks.devices.root.device = "/dev/nvme0n1p2";
```

```
\langle Configure \ the \ environment \ 5 \rangle \equiv
                                                                           (1)
  environment.homeBinInPath = true;
  environment.pathsToLink = [
     "/lib/aspell"
     "/share/emacs/site-lisp"
     "/share/fish"
  ];
\langle \mathit{Configure the file systems 6} \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>
                                                                                    2 https://github.com/NixOS/nixpkgs/
                                                                                    issues/24711
\langle \mathit{Tweak\ hardware\ config\ 7} \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\ 8 \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\ 9 \rangle \equiv
                                                                           (1)
  hardware.pulseaudio.support32Bit = true;
  hardware.opengl.driSupport32Bit = true;
\langle Configure\ home-manager\ 10 \rangle \equiv
                                                                           (1)
  home-manager.useUserPackages = true;
  home-manager.users."${username}" = args:
     import ./home.nix (args // { inherit pkgs; });
\langle Configure\ networking\ 11 \rangle \equiv
                                                                           (1)
  networking.firewall = {
     enable = true;
    allowedTCPPortRanges = [
       # { from = 8000; to = 8000; }
     ];
  };
  networking.hostName = "nixps";
\langle Configure\ Nix\ 12 \rangle \equiv
                                                                           (1)
  nix = {
     buildCores = 8;
     trustedUsers = [ "root" username ];
  };
\langle Configure \ sudo \ 13 \rangle \equiv
                                                                           (1)
  security.sudo = {
     enable = true;
     extraConfig = "
       ${username} ALL=(ALL) NOPASSWD: ALL
  };
```

```
\langle \mathit{Configure}\ \mathit{X}\ \mathit{Server}\ 14 \rangle \equiv
                                                                             (1)
  services.xserver = {
    displayManager.autoLogin = {
       enable = true;
       user = username;
     };
     dpi = 180;
  };
                                                                                       adopt sops-nix
\langle Configure \ sops-nix \ 15 \rangle \equiv
                                                                             (1)
  # FIXME
  # sops = {
       gnupgHome = "/home/yurrriq/.gnupg";
       secrets."${username}.hashedPassword" = {
         format = "binary";
         sopsFile = ./. + "/secrets/${username}.hashedPassword.enc";
       };
  #
       sshKeyPaths = [];
  # };
\langle Configure \ user \ 16 \rangle \equiv
                                                                             (1)
  users.mutableUsers = false;
  users.users."${username}" = {
     name = username;
    hashedPassword = lib.fileContents (./. + "/secrets/${username}.hashedPassword");
     # FIXME: hashedPassword = lib.fileContents config.sops.secrets."${username}.hashedPassword".path;
    group = "users";
     extraGroups = [
       "audio"
       "disk"
       "docker"
       "http"
       "networkmanager"
       "systemd-journal"
       "video"
       "wheel"
     ];
     createHome = true;
     uid = 1000;
    home = "/home/${username}";
     shell = "/etc/profiles/per-user/${username}/bin/fish";
  };
home-manager configuration
\langle machines/nixps/home.nix 17 \rangle \equiv
  { lib, pkgs, ... }:
  {
     \langle Import\ some\ modules\ 18 \rangle
     ⟨Configure account 19⟩
     \langle Add\ some\ more\ user\ packages\ 20\rangle
     _module.args.pkgs = lib.mkForce pkgs;
  }
```

```
\langle Import\ some\ modules\ 18 \rangle \equiv
                                                                       (17)
  imports = [
     ../../config/bash.nix
     ../../config/bat.nix
     ../../config/browserpass.nix
     ../../config/direnv.nix
     ../../config/dunst.nix
     ../../config/emacs
     ../../config/firefox.nix
     ../../config/fish
     ../../config/fzf.nix
     ../../config/git
     ../../config/gpg.nix
     ../../config/htop.nix
     ../../config/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 Configure \ account \ 19 \rangle \equiv
                                                                       (17)
  accounts.email.accounts.primary = {
    address = "eric@ericb.me";
    gpg.key = "F88372B24A806FF23BCB3A4E2DDDF8606958B3F9";
    primary = true;
    realName = "Eric Bailey";
  };
\langle Add \ some \ more \ user \ packages \ 20 \rangle \equiv
                                                                       (17)
  home.packages = with pkgs; [
    appimage-run
    calibre
    fd
    frescobaldi
    musescore
    openscad
    powertop
    reaper
    steam
    tellico
    zoom-us
  ];
```

SRUXPS

};

```
NixOS configuration
The SRUXPS configuration is an expression that takes, at least,
config, lib, and pkgs.
\langle machines/sruxps/configuration.nix 21 \rangle \equiv
  { config, lib, pkgs, ... }:
  let
     username = "e.bailey";
  in
  {
     \langle Set\ the\ location\ to\ MSP\ 22 \rangle
     ⟨Configure the LUKS devices 23⟩
     \langle Configure\ vm.swappiness\ 24 \rangle
     \langle Add \ the \ coretemp \ kernel \ module \ 25 \rangle
     ⟨Link some extra paths 26⟩
     ⟨Configure the file systems 27⟩
     ⟨Configure Bluetooth 29⟩
     \langle Configure\ home-manager\ 30 \rangle
     ⟨Configure networking 31⟩
     \langle Configure\ Nix\ 32 \rangle
     ⟨Configure sudo 33⟩
     \langle Configure\ services\ 34 \rangle
     \langle Configure \ user \ 35 \rangle
     virtualisation.docker.enable = true;
  }
                                                                                          Describe the location module
\langle Set\ the\ location\ to\ MSP\ 22 \rangle \equiv
                                                                               (21)
  airportCode = "MSP";
   Configure the LUKS devices.
\langle Configure \ the \ LUKS \ devices \ 23 \rangle \equiv
                                                                               (21)
  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\ 24 \rangle \equiv
                                                                              (21)
  boot.kernel.sysctl = {
     "vm.swappiness" = 1;
```

```
\langle Add \ the \ coretemp \ kernel \ module \ 25 \rangle \equiv
                                                                        (21)
  boot.kernelModules = [
    "coretemp"
  ];
\langle Link \ some \ extra \ paths \ 26 \rangle \equiv
                                                                        (21)
  environment.homeBinInPath = true;
  environment.pathsToLink = [
    "/lib/aspell"
    "/share/emacs/site-lisp"
    "/share/fish"
    # FIXME: "/share/icons"
  ];
                                                                                  btrfs clean boot?
\langle Configure \ the \ file \ systems \ 27 \rangle \equiv
                                                                   (21) 28⊳
  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 \ 27 \rangle + \equiv
                                                                   (21) \triangleleft 27
  fileSystems."/mnt/music" = {
    device = "192.168.1.147:/volume1/homes/eric/music";
    fsType = "nfs";
    options = [ "noatime" "noauto" "rw" "x-systemd.automount" ];
  };
```

```
\langle Configure\ Bluetooth\ 29 \rangle \equiv
                                                                              (21)
  hardware.bluetooth = {
     enable = true;
     config = {
       General = {
          Enable = "Source, Sink, Media, Socket";
       };
     };
  };
\langle Configure\ home\text{-}manager\ 30 \rangle \equiv
                                                                              (21)
  home-manager.useUserPackages = true;
  home-manager.users."${username}" = args:
     import ./home.nix (args // { inherit pkgs; });
\langle Configure\ networking\ 31 \rangle \equiv
                                                                              (21)
  networking.hostName = "MSP-EBAILEY01";
  networking.interfaces.wlp1s0.useDHCP = true;
  networking.useDHCP = false; # NOTE: Deprecated, so set it false.
\langle \mathit{Configure Nix 32} \rangle \equiv
                                                                              (21)
  nix.trustedUsers = [ "root" username ];
\langle \mathit{Configure}\ \mathit{sudo}\ 33 \rangle \equiv
                                                                              (21)
  security.sudo = {
     enable = true;
     extraConfig = "
       ${username} ALL=(ALL) NOPASSWD: ALL
  };
\langle Configure \ services \ 34 \rangle \equiv
                                                                              (21)
  services.blueman.enable = true;
  services.fwupd.enable = true;
  services.lorri.enable = false;
  services.tlp.enable = true;
  services.xserver.displayManager.autoLogin = {
     enable = true;
     user = username;
  };
  services.xserver.monitorSection = "
    DisplaySize 406 228
  ";
```

```
\langle \mathit{Configure user 35} \rangle \equiv
                                                                          (21)
  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 36 \rangle \equiv
  { lib, pkgs, ... }:
     (Import various program configs 37)
     \langle Configure\ the\ primary\ email\ account\ 38 \rangle
     \langle Install\ some\ user\ packages\ 39 \rangle
     _module.args.pkgs = lib.mkForce pkgs;
  }
```

```
\langle Import\ various\ program\ configs\ 37 \rangle \equiv
                                                                               (36)
  imports = [
     ../../config/bash.nix
     ../../config/bat.nix
     ../../config/browserpass.nix
     ../../config/bugwarrior.nix
     ../../config/direnv.nix
     ../../config/dunst.nix
     ../../config/emacs
     ../../config/firefox.nix
     ../../config/fish
     ../../config/fzf.nix
     ../../config/git
     ../../config/gpg.nix
     ../../config/htop.nix
     ../../config/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 \ 38 \rangle \equiv
                                                                               (36)
  accounts.email.accounts.primary = {
     address = "e.bailey@sportradar.com";
     gpg.key = "EFD6F1EDC84D2FA935E38570462054AB8B682702";
    primary = true;
     realName = "Eric Bailey";
  };
\langle Install\ some\ user\ packages\ 39 \rangle \equiv
                                                                          (36) 40 ⊳
  home.packages = with pkgs; (
       aws-iam-authenticator
       ec2instanceconnectcli
\langle Install\ some\ user\ packages\ 39 \rangle + \equiv
                                                                    (36) \triangleleft 39 42 \triangleright
       progress
   Clementine<sup>3</sup> is a great music player.
                                                                                          3 https://www.clementine-player.
                                                                                          orq/
   I haven't used Dhall in a while, but it's still interesting.
⟨* 41⟩≡
                                                                                46 ⊳
       dhall
       dhall-json
   I might need Docker Compose<sup>4</sup> again someday, but not lately.
                                                                                          4 https://docs.docker.com/compose/
\langle Install\ some\ user\ packages\ 39 \rangle + \equiv
                                                                    (36) ⊲40 43⊳
       docker-compose
   \mathrm{iw}^5 is useful for trouble
shooting wireless issues, like in Trondheim.
                                                                                          <sup>5</sup> https://wireless.wiki.kernel.org/
                                                                                          en/users/documentation/iw
\langle Install\ some\ user\ packages\ 39 \rangle + \equiv
                                                                    (36) \triangleleft 42 \ 44 \triangleright
       iw
       jdk
```

```
https://github.com/Azure/kubelogin
\langle Install\ some\ user\ packages\ 39 \rangle + \equiv
                                                                               (36) ⊲43 45⊳
        kubectx
        kubelogin
        k9s
        stern
   \mathrm{naal}^6 is my tool for non-interactive AWS Azure login.
                                                                                                        6 https://github.com/yurrriq/naal
\langle Install\ some\ user\ packages\ 39 \rangle + \equiv
                                                                               (36) \triangleleft 44 \ 47 \triangleright
         # FIXME: naal
   It would be cool to play with Next<sup>7</sup> some lazy day.
                                                                                                        7 https://next.atlas.engineer/
⟨* 41⟩+≡
                                                                                            ⊲41
   PulseAudio Volume Control<sup>8</sup> is useful for configuring Bluetooth
                                                                                                        8 https://freedesktop.org/software/
                                                                                                        pulseaudio/pavucontrol/
\langle Install\ some\ user\ packages\ 39 \rangle + \equiv
                                                                               (36) \triangleleft 45 \mid 48 \triangleright
         renderizer
        scc
   Try to improve battery life.
\langle Install\ some\ user\ packages\ 39 \rangle + \equiv
                                                                               (36) \triangleleft 47 \ 49 \triangleright
        powertop
\langle \mathit{Install some user packages 39} \rangle + \equiv
                                                                                     (36) \triangleleft 48
        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 50 \rangle \equiv 51 \\ { pkgs, ... }:
```

Configure garbage collection (gc) and my personal Cachix 9 -based 9 https://cachix.org binaryCaches.

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

```
\langle modules/common.nix 50 \rangle + \equiv
                                                               ⊲ 50 52 ⊳
    nix = {
      binaryCaches = [
        "https://yurrriq.cachix.org"
        "https://yurrriq-nur-packages.cachix.org"
      ];
      binaryCachePublicKeys = [
        "yurrrig.cachix.org-1:evpJ5wKluf7Q0Ccv69VkIxC0tHgubrgXlZpp3JAXLBE="
        "yurrriq-nur-packages.cachix.org-1:7kbjuGBUZcWf876g2cdelmIQXrXzOhpMVBqYOyyAv70="
      ];
      # TODO: daemonNiceLevel = 19;
      extraOptions = "
        experimental-features = flakes nix-command
      gc = {
        automatic = true;
        options = "-delete-older-than 30d";
      optimise.automatic = true;
      package = pkgs.nixUnstable;
    };
```

```
Install the Nerd Fonts<sup>10</sup> patched Iosevka<sup>11</sup>.
                                                                                              10 https://www.nerdfonts.com
                                                                                              11 http://be5invis.github.io/
\langle modules/common.nix \; 50 \rangle + \equiv
                                                                             ⊲51 53⊳
                                                                                             Iosevka
     fonts = {
       enableFontDir = true;
       fonts = with pkgs; [
          (nerdfonts.override { fonts = [ "Iosevka" ]; })
       ];
     };
   Enable system-wide Bash completion.
\langle modules/common.nix 50 \rangle + \equiv
                                                                             ⊲52 54⊳
     programs.bash.enableCompletion = true;
\langle \mathit{modules/common.nix} \ 50 \rangle + \equiv
                                                                                   ⊲53
Packages
\langle modules/packages.nix 55 \rangle \equiv
                                                                                   56 ⊳
  { lib, pkgs, ... }:
  {
```

```
\langle modules/packages.nix \; 55 \rangle + \equiv
                                                                ⊲ 55 57 ⊳
    environment.systemPackages = with pkgs; (
        aspell
        aspellDicts.en
        awscli
        bind
        cachix
        clac
        clementine
        coreutils
        # TODO: cquery
        curl
        expect
        gawk
        gcc
        gnumake
        gnused
        gnutar
        gzip
        httpie
        # TODO: http-prompt
        # TODO: idris
        lorri
        moreutils
        neofetch
        nixUnstable
        noweb
        pandoc
        prettyping
        ripgrep
        shellcheck
        shfmt
        silver-searcher # TODO: find helm-rg solution
        slack
        spotify
        stow
```

```
\langle modules/packages.nix \; 55 \rangle + \equiv
                                                                        ⊲56 58⊳
            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 55 \rangle + \equiv
                                                                        ⊲57 59⊳
         tree
         unzip
         vim
         watch
         # wipe
       ]
\langle modules/packages.nix 55 \rangle + \equiv
                                                                        ⊲58 60⊳
     ) ++ (
       with python3Packages; [
         pygments
\langle modules/packages.nix 55 \rangle + \equiv
                                                                        ⊲59 61⊳
     ) ++ lib.optionals stdenv.isDarwin (
       Г
         m-cli
         sourcetree
         onyx
       ] ++ (
         with chunkwm; [
            core
            ffm
            tiling
         ]
       )
```

```
\langle modules/packages.nix 55 \rangle + \equiv
                                                                           ⊲60 62⊳
     ) ++ lib.optionals stdenv.isLinux [
       dolphin
       libnotify
       libreoffice
       lm_sensors
       networkmanager-openconnect
       nfs-utils
       openconnect
       paper-icon-theme
       pavucontrol
       playerctl
       # psmisc
       # pv
       qpdfview
       wirelesstools
   Install Tomb<sup>12</sup> and related packages.
                                                                                            12 https://www.dyne.org/software/
                                                                                            tomb/
\langle modules/packages.nix 55 \rangle + \equiv
                                                                           ⊲61 63 ⊳
       file
       lsof
       tomb
\langle modules/packages.nix 55 \rangle + \equiv
                                                                           ⊲62 64⊳
       (signal-desktop.override { spellcheckerLanguage = "en_US"; })
\langle modules/packages.nix 55 \rangle + \equiv
                                                                           ⊲63 65⊳
       thunderbird
       xclip
       xorg.xbacklight
     ];
\langle modules/packages.nix 55 \rangle + \equiv
                                                                                 \triangleleft 64
  }
Location
\langle modules/location.nix 66 \rangle \equiv
                                                                                 67⊳
  { config, lib, ... }:
\langle modules/location.nix 66 \rangle + \equiv
                                                                           ⊲66 68⊳
     airportCode = config.airportCode;
  in
  {
\langle modules/location.nix 66 \rangle + \equiv
                                                                           ⊲67 69 ⊳
     options.airportCode = lib.mkOption {
       default = "MSP";
       type = lib.types.enum [ "ATL" /* "LHR" */ "LJU" "MSP" "TRD" ];
     };
```

```
\langle modules/location.nix 66 \rangle + \equiv
                                                                     ⊲68 70⊳
    config = lib.mkMerge [
  The Sportradar office in Minneapolis.
\langle modules/location.nix 66 \rangle + \equiv
                                                                     ⊲69 71 ⊳
         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 \; 66 \rangle + \equiv
                                                                     ⊲70 72⊳
         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 66 \rangle + \equiv
                                                                     ⊲71 73⊳
         lib.mkIf (airportCode = "LHR") {
           location = {
             latitude = 51.51;
             longitude = -0.09;
           };
           time.timeZone = "Europe/London";
         }
      )
  The Sportradar office in Ljubljana.
\langle modules/location.nix 66 \rangle + \equiv
                                                                     ⊲72 74⊳
      (
         lib.mkIf (airportCode = "LJU") {
           location = {
              latitude = 46.09;
              longitude = 14.55;
           };
           time.timeZone = "Europe/Ljubljana";
         }
      )
```

```
The Sportradar office in Trondheim.
\langle modules/location.nix 66 \rangle + \equiv
                                                                                ⊲73 75⊳
          lib.mkIf (airportCode = "TRD") {
             location = {
                latitude = 63.43;
                longitude = 10.40;
             time.timeZone = "Europe/Oslo";
          }
        )
\langle modules/location.nix 66 \rangle + \equiv
                                                                                     ⊲74
     ];
  }
NixOS
\langle modules/nixos.nix 76 \rangle \equiv
  { config, lib, pkgs, ... }:
     \langle Configure\ boot\ loader\ 77 \rangle
     ⟨Configure fonts, keyboard, and locale 78⟩
     ⟨Configure location 79⟩
     \langle Enable\ networkmanager\ 80 \rangle
     ⟨Allow unfree packages 81⟩
     ⟨Configure services 82⟩
     \langle Configure \ audio \ 84 \rangle
     system.stateVersion = "20.09";
     \langle Configure\ virtualisation\ 85 \rangle
\langle Configure\ boot\ loader\ 77 \rangle \equiv
                                                                                     (76)
  boot = {
     cleanTmpDir = true;
     loader = {
        systemd-boot.enable = true;
        efi.canTouchEfiVariables = true;
     };
  };
\langle Configure fonts, keyboard, and locale 78 \rangle \equiv
                                                                                     (76)
  console.font = "Lat2-Terminus16";
  console.keyMap = "us";
i18n.defaultLocale = "en_US.UTF-8";
                                                                                                  Link/document this
\langle Configure\ location\ 79 \rangle \equiv
                                                                                     (76)
  location.provider = "manual";
\langle Enable\ networkmanager\ 80 \rangle \equiv
                                                                                     (76)
  networking.networkmanager.enable = true;
\langle Allow\ unfree\ packages\ 81\rangle \equiv
                                                                                     (76)
  nixpkgs.config.allowUnfree = true;
```

```
\langle \mathit{Configure \ services \ 82} \rangle {\equiv}
                                                                               (76)
  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 \mathit{Configure}\ \mathit{Xserver}\ 83 \rangle
  };
```

```
\langle Configure \ Xserver \ 83 \rangle \equiv
                                                                       (82)
  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 Configure \ audio \ 84 \rangle \equiv
                                                                       (76)
  hardware.pulseaudio = {
    enable = true;
    extraModules = [ pkgs.pulseaudio-modules-bt ];
    package = pkgs.pulseaudioFull;
  };
  sound.enable = true;
                                                                                  Document podman vs dockerd
\langle Configure\ virtualisation\ 85 \rangle \equiv
                                                                       (76)
                                                                                  Fix rootless podman
  virtualisation = {
    docker = {
      enable = lib.mkDefault false;
      liveRestore = lib.mkDefault false;
    };
    podman = {
      enable = lib.mkDefault (!config.virtualisation.docker.enable);
      dockerCompat = lib.mkDefault true;
    };
  };
```

Darwin

```
\langle modules/darwin.nix 86 \rangle \equiv
                                                                    87⊳
  { pkgs, ... }:
  {
\langle modules/darwin.nix 86 \rangle + \equiv
                                                                ⊲86 88⊳
    nixpkgs.config.allowUnfree = true;
\langle modules/darwin.nix~86\rangle + \equiv
                                                                ⊲87 89⊳
    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
                                                      Ø
          chunkc set global_desktop_mode
                                                      bsp
          chunkc set global_desktop_offset_top
          chunkc set global_desktop_offset_bottom
                                                      0
                                                      0
          chunkc set global_desktop_offset_left
                                                      0
          chunkc set global_desktop_offset_right
          chunkc set global_desktop_offset_gap
                                                      0
          chunkc set bsp_spawn_left
                                                      1
                                                      1.618
          chunkc set bsp_optimal_ratio
          chunkc set bsp_split_mode
                                                      optimal
          chunkc set bsp_split_ratio
                                                      0.66
          chunkc set window_focus_cycle
                                                      all
          chunkc set mouse_follows_focus
                                                      1
          chunkc set window_region_locked
                                                      1
      };
    };
```

```
\langle modules/darwin.nix 86 \rangle + \equiv
                                                              ⊲88 90⊳
    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 86 \rangle + \equiv
                                                              ⊲89 91⊳
    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 86 \rangle + \equiv
                                                              ⊲90 92⊳
    system.defaults.dock = {
      autohide = true;
      mru-spaces = false;
      orientation = "right";
      showhidden = true;
    };
```

Software configuration

}

```
Bash
Enable the Bash module, as well as autojump.
\langle config/bash.nix 95 \rangle \equiv
  { ... }:
  {
     programs.autojump.enable = true;
     programs.bash.enable = true;
  }
bat
Enable the bat^{13} module.
                                                                                               13 https://github.com/sharkdp/bat
\langle config/bat.nix 96 \rangle \equiv
                                                                                    97⊳
  { ... }:
  {
     programs.bat = {
        enable = true;
        config = {
   For the pager, use less.
\langle \mathit{config/bat.nix} \ 96 \rangle + \equiv
                                                                              ⊲96 98⊳
          pager = "less -FR";
   Set the style to changes.
\langle config/bat.nix 96 \rangle + \equiv
                                                                              ⊲97 99⊳
          style = "changes";
   Use the Monokai Extended theme.
\langle config/bat.nix 96 \rangle + \equiv
                                                                             ⊲98 100⊳
          theme = "Monokai Extended";
\langle \mathit{config/bat.nix} \ 96 \rangle + \equiv
                                                                                    ⊲99
       };
     };
```

Browserpass

];

```
\langle config/browserpass.nix\ 101 \rangle \equiv
  { pkgs, ... }:
  {
     home.packages = with pkgs; [
       browserpass
     ];
     programs.browserpass = {
       enable = true;
       browsers = [ "firefox" ];
     };
  }
bugwarrior
\langle \mathit{config/bugwarrior}.\mathit{nix}\ 102 \rangle {\equiv}
  { config, pkgs, ... }:
  {
```

```
\langle \mathit{config/bugwarrior}.\mathit{nix}\ 102 \rangle + \equiv
                                                                                       ⊲102 104⊳
      home.packages = with pkgs; [
         bugwarrior
      ];
```

103⊳

⊲103 105⊳

```
\langle \mathit{config/bugwarrior}.\mathit{nix}\ 102\rangle + \equiv
      imports = [
         ./password-store.nix
         ./taskwarrior
        ./password-store.nix
```

```
\langle config/bugwarrior.nix 102 \rangle + \equiv
                                                                 ⊲104 106⊳
    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}\ 102 \rangle + \equiv
                                                                       ⊲105
direnv
\langle \mathit{config/direnv.nix}\ 107 \rangle {\equiv}
  { ... }:
  {
    programs.direnv = {
      enable = true;
      enableZshIntegration = false;
    };
  }
```

Dunst

```
\langle config/dunst.nix \ 108 \rangle \equiv
   { pkgs, ... }:
   {
      services.dunst = {
         enable = true;
         \langle Configure\ Dunst\ icon\ theme\ 109 \rangle
         settings = {
            global = {
               \langle \mathit{Configure\ Dunst\ global\ settings\ 110} \rangle
            };
            \langle Configure\ Dunst\ shortcuts\ 111 \rangle
            \langle Configure\ Dunst\ urgency\ styling\ 112 \rangle
            \langle \textit{Configure critical Slack notifications } 113 \rangle
         };
      };
   }
\langle Configure\ Dunst\ icon\ theme\ 109 \rangle \equiv
                                                                                               (108)
   iconTheme = {
      package = pkgs.paper-icon-theme;
      name = "Paper";
size = "48x48";
   };
```

```
\langle \mathit{Configure\ Dunst\ global\ settings\ 110} \rangle {\equiv}
                                                                     (108)
  font = "Iosevka Term 10";
  markup = "yes";
  plain_text = "no";
  format = "<b>%s</b>\n%b";
  sort = "yes";
  indicate_hidden = "yes";
  alignment = "center";
  bounce_freq = 0;
  show_age_threshold = 30;
  word_wrap = "yes";
  ignore_newline = "no";
  stack_duplicates = "yes";
  hide_duplicates_count = "yes";
  geometry = "700x5-0-70";
  shrink = "no";
  transparency = 15;
  idle_threshold = 0;
  follow = "keyboard";
  sticky_history = "yes";
  history_length = 15;
  show_indicators = "no";
  startup_notification = false;
  dmenu = "/run/current-system/sw/bin/dmenu -p dunst:";
  browser = "/etc/profiles/per-user/e.bailey/bin/firefox -new-tab";
  icon_position = "left";
  max_icon_size = 80;
  frame_width = 0;
  frame_color = "#8EC07C";
\langle Configure\ Dunst\ shortcuts\ 111 \rangle \equiv
                                                                     (108)
  shortcuts = {
    close = "mod1+space";
    close_all = "mod4+mod1+space";
    history = "ctrl+grave";
  };
\langle Configure\ Dunst\ urgency\ styling\ 112 \rangle \equiv
                                                                     (108)
  urgency_low = {
    frame_color = "#3B7C87";
    foreground = "#3B7C87";
    background = "#2B313C";
    timeout = 4;
  };
  urgency_normal = {
    frame_color = "#5B8234";
    foreground = "#5B8234";
    background = "#2B313C";
    timeout = 6;
  urgency_critical = {
    frame_color = "#B7472A";
    foreground = "#B7472A";
    background = "#191311";
    timeout = 8;
  };
```

```
\langle Configure\ critical\ Slack\ notifications\ 113 \rangle \equiv
                                                                     (108)
  slack = {
    appname = "Slack";
    body = "*critical*";
    frame_color = "#B7472A";
    foreground = "#B7472A";
    background = "#191311";
    urgency = "critical";
  };
Emacs
\langle config/emacs/default.nix 114 \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;
  }
```

```
{\tt INSTALL\ some\ Emacs\ packages.}
\langle \mathit{config/emacs/packages.nix} \ 115 \rangle {\equiv}
  { pkgs, ... }:
  {
     home.packages = with pkgs; [
        graphviz
        sqlite
     ];
     programs.emacs.extraPackages = epkgs: (
        with epkgs.elpaPackages; [
           \langle \mathit{elpa}\ \mathit{packages}\ 116 \rangle
        ]
     ) ++ (
        with epkgs.melpaPackages; [
          \langle melpa\ packages\ 117 \rangle
        ]
     );
  }
ELPA Packages
\langle elpa\ packages\ 116 \rangle \equiv
                                                                                     (115)
  mmm-mode
  rainbow-mode
```

MELPA Packages

```
\langle melpa\ packages\ 117 \rangle \equiv
                                                                   (115)
  avy
  better-defaults
  clj-refactor
  clojure-mode
  # TODO: company-lsp
  # TODO: cquery
  crux
  # dhall-mode
  direnv
  dockerfile-mode
  editorconfig
  elixir-mode
  {\it 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
  org-roam
  dash
  f
  emacsql
  emacsql-sqlite3
  paredit
  rainbow-delimiters
  # robe
  rust-mode
  # rvm
  smex
  terraform-mode
  tuareg
  use-package
  whitespace-cleanup-mode
```

yaml-mode

```
Init File
\langle config/emacs/init.el \ 118 \rangle \equiv
                                                                                119⊳
  (server-start)
\langle config/emacs/init.el 118 \rangle + \equiv
                                                                         ⊲118 120⊳
   (setq server-window 'pop-to-buffer-same-window)
\langle config/emacs/init.el 118 \rangle + \equiv
                                                                         ⊲119 121⊳
   (column-number-mode 1)
\langle config/emacs/init.el 118 \rangle + \equiv
                                                                         ⊲120 122⊳
   (add-to-list 'exec-path "/run/current-system/sw/bin")
\langle config/emacs/init.el~118 \rangle + \equiv
                                                                         ⊲121 123⊳
   (menu-bar-mode 0)
   (scroll-bar-mode 0)
  (tool-bar-mode 0)
\langle config/emacs/init.el~118 \rangle + \equiv
                                                                         ⊲122 124⊳
  (let ((font "Iosevka-10"))
     (set-face-attribute 'default t :font font)
     (set-frame-font font nil t))
\langle config/emacs/init.el \ 118 \rangle + \equiv
                                                                         ⊲ 123 125 ⊳
   (require 'package)
\langle config/emacs/init.el~118 \rangle + \equiv
                                                                         ⊲124 126⊳
  (setq-default frames-only-mode t
                    indent-tabs-mode nil
                    package-archives nil
                    package-enable-at-startup nil)
\langle config/emacs/init.el~118 \rangle + \equiv
                                                                         ⊲ 125 127 ⊳
  (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 118 \rangle + \equiv
                                                              ⊲126 128⊳
  (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
         auto-save-timeout
                                     20
        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
                                    t
         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~118} \rangle + \equiv
                                                              ⊲127 129⊳
  (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.
    (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 \ 118 \rangle + \equiv
                                                              ⊲128 130⊳
  (dolist (pattern '("^\\(/dev/shm/\\|/tmp/\\)"
                       "\.\(enc\)\
    (add-to-list 'auto-mode-alist (cons pattern 'sensitive-mode)))
\langle config/emacs/init.el \ 118 \rangle + \equiv
                                                              ⊲129 131⊳
  (setq custom-file "~/.emacs.d/private/local/custom.el")
```

```
\langle config/emacs/init.el \ 118 \rangle + \equiv
                                                                       ⊲130 132⊳
   (load-theme 'wombat)
\langle config/emacs/init.el 118 \rangle + \equiv
                                                                       ⊲131 133⊳
   (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~118} \rangle + \equiv
                                                                       ⊲132 134⊳
                                   "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 \ 118 \rangle + \equiv
                                                                       ⊲133 135⊳
  (setq-default fill-column 80)
\langle config/emacs/init.el~118 \rangle + \equiv
                                                                       ⊲134 136⊳
  (org-babel-do-load-languages
    'org-babel-load-languages
    '((shell . t)))
\langle config/emacs/init.el \ 118 \rangle + \equiv
                                                                       ⊲135 137⊳
   (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~118 \rangle + \equiv
                                                                       ⊲136 138⊳
  (use-package crux
     :demand
     :config (global-set-key (kbd "C-a") 'crux-move-beginning-of-line))
\langle config/emacs/init.el 118 \rangle + \equiv
                                                                       ⊲137 139⊳
   (use-package editorconfig
     :ensure t
     :config
     (editorconfig-mode 1))
\langle config/emacs/init.el \ 118 \rangle + \equiv
                                                                       ⊲138 140⊳
  (use-package emojify)
\langle config/emacs/init.el 118 \rangle + \equiv
                                                                       ⊲139 141⊳
  (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 \ 118 \rangle + \equiv
                                                                       ⊲140 142⊳
  (use-package hl-todo
     :demand
     :config (global-hl-todo-mode t))
```

```
\langle \mathit{config/emacs/init.el~118} \rangle + \equiv
                                                                       ⊲141 143⊳
  (use-package magit
     :demand
     :config (global-magit-file-mode t))
\langle config/emacs/init.el \ 118 \rangle + \equiv
                                                                       ⊲142 144⊳
  (use-package multiple-cursors
     :demand
     :config (global-set-key (kbd "C-S-c C-S-c") 'mc/edit-lines))
\langle config/emacs/init.el~118 \rangle + \equiv
                                                                       ⊲143 145⊳
  (use-package nix-mode
     :mode ("\\.nix\\'"))
\langle \mathit{config/emacs/init.el~118} \rangle + \equiv
                                                                       ⊲144 146⊳
  (use-package noweb-mode
     :load-path "/run/current-system/sw/share/emacs/site-lisp"
     :mode ("\\.nw\\'")
     :demand)
\langle config/emacs/init.el \ 118 \rangle + \equiv
                                                                       ⊲145 147⊳
  (use-package nyan-mode
     :demand
     :config (nyan-mode 1))
\langle config/emacs/init.el~118 \rangle + \equiv
                                                                       ⊲146 148⊳
  (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 \ 118 \rangle + \equiv
                                                                       ⊲147 149⊳
  (use-package tuareg
     :mode ("\\.ml\\'" "\\.mli\\'"))
\langle config/emacs/init.el \ 118 \rangle + \equiv
                                                                              ⊲148
  (use-package whitespace-cleanup-mode
     :demand
     :config (global-whitespace-cleanup-mode t))
```

Firefox

```
\langle config/firefox.nix \ 150 \rangle \equiv
  { pkgs, ... }:
  {
    programs.firefox = {
      enable = true;
      extensions = with pkgs.nur.repos.rycee.firefox-addons; [
        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\ 151 \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

" $\operatorname{\mathsf{abbr}}$ 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."¹⁴

```
^{14} abbr - manage fish abbreviations.
                                                                                                      URL https://fishshell.com/docs/
\langle config/fish/abbrs.nix \ 152 \rangle \equiv
                                                                                                      current/cmds/abbr.html
```

```
{ ... }:
{
  programs.fish.shellAbbrs = {
     \langle AWS \ Azure \ login \ abbreviation \ 153 \rangle
     ⟨Kubernetes fish abbreviations 154⟩
     (Nix fish abbreviations 155)
     ⟨ripgrep fish abbreviations 156⟩
  };
}
```

NAAL¹⁵ IS COOL AND ALL, BUT... 15 https://github.com/yurrriq/naal

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

```
\langle AWS \ Azure \ login \ abbreviation \ 153 \rangle \equiv
                                                                                          (152)
   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 \ 154 \rangle \equiv
                                                                       (152)
  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 \ 155 \rangle \equiv
                                                                                (152)
  nb = "nix build";
  nbd = "nix build -dry-run";
  nbn = "nix build -no-link";
  nbo = "nix build -o";
```

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." 16

```
\langle ripgrep \ fish \ abbreviations \ 156 \rangle \equiv
                                                                                  (152) 157⊳
   rg = "rg -S";
\langle ripgrep\ fish\ abbreviations\ 156 \rangle + \equiv
                                                                          (152) ⊲156 158⊳
   rga = "rg -hidden -iglob !.git";
   rgf = "rg -F";
```

"Never print the file path with the matched lines", and "[s]uppress line numbers."17

```
\langle ripgrep \ fish \ abbreviations \ 156 \rangle + \equiv
                                                                                                                       (152) \triangleleft 157 \ 159 \triangleright
```

```
rgin = "rg -IN";
λ rg -IN name: helmfile.d/*.yaml | sort -u
- name: cert-manager
- name: cluster-autoscaler
- name: elastalert
- name: elasticsearch-client
- name: elasticsearch-curator
- name: elasticsearch-exporter
- name: elasticsearch-master
- name: external-dns
- name: fluentd-elasticsearch
- name: hubble
- name: kibana
- name: kube-resource-report
- name: metrics-server
- name: nginx-ingress-core
- name: prometheus-operator
\langle ripgrep \ fish \ abbreviations \ 156 \rangle + \equiv
                                                                  (152) \triangleleft 158
  rgn = "rg -no-heading";
\langle config/fish/aliases.nix\ 160 \rangle \equiv
  { ... }:
  {
```

programs.fish.shellAliases = rec {

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

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

Old Darwin habits

gpg = "gpg2";

k = "clear";

};

}

¹⁶ Andrew Gallant. rg - man page. URL https://www.mankier.com/1/rg

 $^{\rm 17}\,{\rm Andrew}$ Gallant. rg - man page. URL https://www.mankier.com/1/rg

```
\langle \mathit{config/fish/shellInit.fish} \ 161 \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\ 162 \rangle \equiv
                                                                     163 ⊳
  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\ 162\rangle + \equiv
                                                                 ⊲162 164⊳
  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\ 162 \rangle + \equiv
                                                                 ⊲163 165⊳
  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\ 162\rangle + \equiv
                                                                 ⊲164 166⊳
  command -sq fluidsynth; and function playmidi
       fluidsynth -i ~/lib/arachno-soundfont/Arachno\ SoundFont\ -\ Version\ 1.0.sf2 $argv
  end
\langle config/fish/interactiveShellInit.fish\ 162 \rangle + \equiv
                                                                 ⊲165 167⊳
  command -sq kitty; and function icat
       kitty +kitten icat $argv
  end
\langle config/fish/interactiveShellInit.fish\ 162\rangle + \equiv
                                                                 ⊲166 168⊳
  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~162}\rangle + \equiv
                                                                 ⊲167 169⊳
  # FIXME: functions rvm >/dev/null 2>&1; and rvm default
\langle config/fish/interactiveShellInit.fish\ 162 \rangle + \equiv
                                                                 ⊲168 170⊳
  set fish_greeting
```

```
\langle \mathit{config/fish/interactiveShellInit.fish~162}\rangle + \equiv
                                                                        ⊲169
  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\ 171\rangle \equiv
  function fish_prompt
      set -1 code $status
      if set -q IN_NIX_SHELL
          set symbol "λΠ "
      else
          set symbol "\lambda "
      end
      if git::is_repo
          set -1 branch (git::branch_name ^/dev/null)
          set -l ref (git show-ref -head -abbrev | awk '{print substr($0,0,7)}' | sed -n 1p)
          if git::is_stashed
              echo -n -s (white)"^"(off)
          end
          echo -n -s (red)"("(off)
          if git::is_dirty
              printf (white)"*"(off)
          end
          if command git symbolic-ref HEAD > /dev/null ^/dev/null
              if git::is_staged
                   printf (cyan)"$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 config/fish/sushi/fish\_right\_prompt.fish~172\rangle \equiv
                                                                      173 \triangleright
                                                 ----- [ Colors ]
  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
```

```
⊲172 174⊳
  function git::is_repo
      test -d .git; or command git rev-parse -git-dir >/dev/null ^/dev/null
  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\ 172 \rangle + \equiv
                                                          ⊲173 175⊳
                                                ----- [ 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\ 172} \rangle + \equiv
                                     ———— [ Kubernetes ]
  function k8s::current_context
      command kubectl config current-context
  end
  function k8s::current_namespace
      command kubectl config view -minify -o jsonpath='{.contexts[0].context.namespace}'
  end
  function k8s::current_user
      command kubectl config view -minify -o jsonpath='{.users[0].name}' \
          | string replace "@sportradar.com" ""
  end
```

```
\langle \mathit{config/fish/sushi/fish\_right\_prompt.fish\ 172}\rangle + \equiv
                                                                    ⊲175
                                              -- [ 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 177 \rangle \equiv
  { ... }:
  {
    programs.fzf = {
      enable = true;
       enableZshIntegration = false;
    };
  }
```

Git

```
\langle \mathit{config/git/default.nix}\ 178 \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} \ 179 \rangle {\equiv}
  { lib, pkgs, ... }:
    home.packages = with pkgs; (
         diff-pdf
         git
         git-lfs
         github-cli
         kdiff3
         nix-prefetch-git
         {\tt 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 \ 180 \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;
```

```
url."git@gitlab.sportradar.ag:" = {
     insteadOf = "https://gitlab.sportradar.ag/";
 };
};
  xdg.configFile."pass-git-helper/git-pass-mapping.ini" = {
   source = ./git-pass-mapping.ini;
  };
  xdg.dataFile."git/commit.template" = {
   source = ./commit.template;
 };
}
```

Aliases

```
\langle config/git/aliases.nix \ 181 \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";
      cp = "cherry-pick";
      cpa = "${cp} -abort";
      cpc = "${cp} -continue";
      cs = "crypt status";
      cse = "crypt status -e";
      csm = "commit -S -m";
      csu = "crypt status -u";
      d = "diff";
      dad = "add";
      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 \ 182 \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;
      defaultCacheTt1 = 28800;
      enableSshSupport = true;
      maxCacheTtl = 28800;
    };
  }
htop
\langle config/htop.nix \ 183 \rangle \equiv
  { ... }:
  {
    programs.htop.enable = true;
  }
```

```
jq
\langle config/jq.nix \ 184 \rangle \equiv
  { ... }:
  {
    programs.jq.enable = true;
  }
\langle \mathit{config/kitty.nix}\ 185 \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} \ 186 \rangle \equiv
   { ... }:
   {
     programs.man.enable = true;
   }
nixpkgs
\langle \mathit{config/nixpkgs/default.nix}\ 187 \rangle {\equiv}
   { ... }:
   {
     nixpkgs.config = import ./nixpkgs-config.nix;
     xdg.configFile."nixpkgs/config.nix".source = ./nixpkgs-config.nix;
   }
\langle config/nixpkgs/nixpkgs\text{-}config.nix\ 188\rangle {\equiv}
     allowBroken = false;
     allowUnfree = true;
     allowUnsupportedSystem = false;
   }
```

```
\langle \mathit{config/password\text{-}store}.\mathit{nix}\ 189 \rangle {\equiv}
  { config, pkgs, ... }:
    home.packages = with pkgs; [
       gitAndTools.pass-git-helper
     ];
    programs.password-store = {
       enable = true;
       package = pkgs.pass.withExtensions (exts: with exts; [
         pass-genphrase
         pass-otp
         pass-tomb
         pass-update
       ]);
       settings = {
         PASSWORD_STORE_DIR = "${config.home.homeDirectory}/.password-store";
       };
     };
  }
rebar3
\langle config/rebar3.nix 190 \rangle \equiv
  { ... }:
  {
     xdg.configFile."rebar3/rebar.config".text = "
       {plugins, [rebar3_hex]}.
  }
```

Starship

```
Starship<sup>18</sup> is the minimal, blazing-fast, and infinitely customizable
                                                                                18 https://starship.rs
prompt for any shell!
\langle config/starship.nix 191 \rangle \equiv
  { lib, ... }:
    programs.starship = {
      enable = true;
       settings = {
         add_newline = false;
         character = {
           success_symbol = "[\lambda](bold green)";
           error_symbol = "[\lambda](bold red)";
         };
         format = builtins.concatStringsSep "" (
           lib.splitString "\n" "
             $username
             $hostname
             $shlvl
             $kubernetes
             $directory
             $git_branch
             $git_commit
             $git_state
             $git_status
             $hg_branch
             $docker_context
             $package
             $cmake
             $dart
             $dotnet
             $elixir
             $elm
             $erlang
             $golang
             $helm
             $java
             $julia
             $nim
             $nodejs
             $ocaml
             $perl
             $php
             $purescript
             $python
             $ruby
             $rust
             $swift
             $terraform
             $zig
             $nix_shell
             $conda
             $memory_usage
```

```
$aws
              $gcloud
              $openstack
              $env_var
              $crystal
              $cmd_duration
              $custom
              $lua
              $jobs
              $battery
              $time
              $line_break
              $status
              $character
         );
         git_branch.symbol = "@ ";
         git_commit.tag_disabled = false;
         git_status = {
           ahead = "1" *{count}";
           behind = "$\psi \square* \{count\}";
           diverged = "1 1" *{ahead_count} \( \psi \) "${behind_count}";
           staged = "+$count";
         };
         kubernetes.disabled = false;
         nix_shell = {
           format = "via [$symbol$state]($style) ";
           impure_msg = "\";
           pure_msg = "\rho";
           symbol = "∅";
         };
         stats.disabled = false;
         time.disabled = false;
       };
    };
  }
Taskwarrior
Config
\langle config/taskwarrior/default.nix 192 \rangle \equiv
                                                                           193⊳
  { config, lib, pkgs, ... }:
  {
  Install Timewarrior<sup>19</sup>.
                                                                                      19 https://timewarrior.net
\langle config/taskwarrior/default.nix\ 192 \rangle + \equiv
                                                                    \triangleleft\,192\ 194\,\triangleright
    home.packages = with pkgs; [
       timewarrior
    ];
```

SINCE HOME-MANAGER GENERATES A READ-ONLY .taskrc FILE, and using $contexts^{20}$ requires Taskwarrior to be able to modify the it, use the following hacky workaround.

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

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

```
\langle config/taskwarrior/default.nix 192 \rangle + \equiv
                                                                       ⊲193 195⊳
     home.sessionVariables = {
       TASKRC = "~/.taskrc-dirty";
     };
```

Define short Taskwarrior shell aliases.

```
\langle config/taskwarrior/default.nix\ 192 \rangle + \equiv
                                                              ⊲194 196⊳
    programs.fish.shellAliases = lib.mkIf (config.programs.fish.enable) rec {
      p = "task ls limit:page";
      po = "timew summary :week";
      pp = tbd;
      t = "task limit:page";
      ta = "task add";
      tbd = "task burndown.daily";
      te = "env VISUAL=$EDITOR task edit";
      tl = "task list";
      tm = "task mod";
      tw = "timew";
    };
```

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

```
\langle config/taskwarrior/default.nix\ 192 \rangle + \equiv
                                                             ⊲ 195 197 ⊳
    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";
          };
        };
      };
    };
```

```
Link the on-exit Git hook. ^{22}
                                                                                     <sup>22</sup> See next subssection.
\langle config/taskwarrior/default.nix\ 192 \rangle + \equiv
                                                                    ⊲196 198⊳
     xdg.dataFile."task/hooks/on-exit-git.sh" = {
       executable = true;
       source = ./on-exit-git.sh;
     };
                                                                          ⊲197
\langle config/taskwarrior/default.nix\ 192 \rangle + \equiv
     xdg.dataFile."task/hooks/on-modify.timewarrior" = {
       executable = true;
       source = let inherit (pkgs.timewarrior) version; in
         with pkgs; stdenv.mkDerivation {
           pname = "taskwarrior-on-modify.timewarrior";
           inherit version;
           nativeBuildInputs = [ makeWrapper ];
           src = fetchurl {
              url = "https://raw.githubusercontent.com/GothenburgBitFactory/timewarrior/v${version}/ext/on-modify.timew
              sha512 = "sha512-CaaELr0JaDJ/LNvwUGDQUQPoKEOapGkJMycD9ujv0DWgfTQzoYkw/JCDPChreT4xCEJ303sAx4NpUqb+260orw=
           };
           dontUnpack = true;
           installPhase = "
              install -m755 $src $out
              substituteInPlace $out -replace "/usr/bin/env " ${python3}/bin/
         };
    };
  }
on-exit Git hook
FIRST, use a fairly portable Bash shebang, and be safe.<sup>23</sup>
                                                                                     ^{23}\,\text{-exit} immediately upon fail-
                                                                                     ure, treat -Unset variables as an
\langle config/taskwarrior/on-exit-git.sh \ 199 \rangle \equiv
                                                                          200 ⊳
                                                                                     error, disable -file globbing, and
  #! /usr/bin/env bash
                                                                                     fail if any part of a pipeline fails
                                                                                     (-o pipefail).
  set -eufo pipefail
   Run in debug mode^{24}, if the environment variable DEBUG is nonempty.
                                                                                     <sup>24</sup> i.e. echo commands
\langle config/taskwarrior/on\text{-}exit\text{-}git.sh \ 199 \rangle + \equiv
                                                                    ⊲199 201⊳
  if [ -n "${DEBUG:-}" ]; then
       set -x
  fi
```

Parse the command line arguments.

Don't include the api version, rc file, or Taskwarrior version.

```
i="${1#api:}"
="${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\ 199 \rangle + \equiv
                                                                         ⊲200 202⊳
  args="${2#args:}"
  command="${3#command:}"
  data="${5#data:}"
```

N.B. The positional arguments are formatted as foo:bar, where foo is the name of the argument, and bar is the value.

THROUGHOUT THIS SCRIPT, run git as if it were started in the Taskwarrior data directory, i.e. git -C "\$data".

```
\langle config/taskwarrior/on\text{-}exit\text{-}git.sh \ 199 \rangle + \equiv
                                                                           ⊲201 203⊳
  if git -C "$data" diff -quiet; then
        if [ -n "${DEBUG:-}" ]; then
            echo 'No changes to commit'
        fi
        exit 0
```

If there are no changes, exit successfully, printing an informative message if running in debug mode. git diff exits with status code 0 if there are no differences between the working tree and the index.

If present, stage the changes or die trying.

```
\langle config/taskwarrior/on-exit-git.sh\ 199 \rangle + \equiv
                                                                      ⊲202 204⊳
  elif ! git -C "$data" add -A; then
       echo 'Failed to add files to the index'
       exit 100
```

Try to commit the changes, or else.

```
\langle config/taskwarrior/on-exit-git.sh\ 199 \rangle + \equiv
                                                                   ⊲203 205⊳
  elif ! git -C "$data" commit -qm "$command: ${args#task $command}"; then hanges.
       echo 'Failed to record changes to the repository'
       exit 101
```

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

If running in debug mode, print a brief summary of the commit.

```
\langle config/taskwarrior/on-exit-git.sh\ 199 \rangle + \equiv
                                                                                ⊲204
  elif [ -n "${DEBUG:-}" ]; then
       git -C "$data" log -oneline -1
  fi
```

xmonad

```
\langle config/xmonad/default.nix 206 \rangle \equiv
  { pkgs, ... }:
  {
    home.file.".xmonad/matrix.png".source = ./matrix.png;
    home.packages = with pkgs; [
      flameshot
      # font-awesome_4
      i3lock
      haskellPackages.xmobar
    ];
    programs.rofi = {
      enable = true;
      font = "Iosevka Term 18";
      pass = {
        enable = true;
        stores = [ "~/.password-store" ];
      };
      theme = "purple";
    };
    services.network-manager-applet.enable = true;
    services.pasystray.enable = true;
    services.picom.enable = true;
    services.stalonetray = {
      enable = false;
      config = {
        background = "#001e26";
        decorations = "none";
        dockapp_mode = "none";
        geometry = "5x1-860-0";
        grow_gravity = "NE";
        icon_gravity = "NE";
        icon_size = 43;
        kludges = "force_icons_size";
        no_shrink = false;
        skip_taskbar = true;
        sticky = true;
        transparent = false;
        window_layer = "bottom";
        window_strut = "none";
        window_type = "dock";
      };
    };
    xdg.configFile."xmobar/xmobarrc".source = ../xmobar/xmobarrc;
```

```
xsession = {
    enable = true;
    pointerCursor = {
     package = pkgs.vanilla-dmz;
     name = "Vanilla-DMZ-AA";
     size = 36;
    };
    scriptPath = ".hm-xsession";
    windowManager.xmonad = {
     enable = true;
     enableContribAndExtras = true;
     config = ./xmonad.hs;
 };
};
}
```

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." $^{25}\,$ 5

 $^{25}\,\mathrm{https://nixos.org/nixos/manual/}$ index.html #sec-writing-modules

A cronyms

 $LU\!K\!S$ Linux Unified Key Setup 5, 10

Bibliography

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To-Do

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