We will encourage you to develop the three great virtues of a programmer: *laziness, impatience, and hubris*.

- Larry Wall
  Programming Perl (1st edition)
First Thing in the Morning...

```
$ ansible-playbook -i hosts site.yaml

....

jump.stage.example.com : ok=16 changed=15 unreachable=0 failed=0
db-1.stage.example.com : ok=93 changed=10 unreachable=0 failed=0
db-2.stage.example.com : ok=82 changed=21 unreachable=0 failed=0
db-3.stage.example.com : ok=82 changed=21 unreachable=0 failed=0
stargate-1.stage.example.com : ok=36 changed=32 unreachable=0 failed=0
stargate-2.stage.example.com : ok=51 changed=17 unreachable=0 failed=0
stargate-3.stage.example.com : ok=51 changed=17 unreachable=0 failed=0
stargate-4.stage.example.com : ok=51 changed=17 unreachable=0 failed=0
```
By Mid-Day...

$ terraform workspace select us-east-1-prod-1

$ terraform plan

...  

Plan: 5 to add, 9 to change, 1 to destroy.
I DON'T KNOW WHO YOU ARE, YET

BUT I WILL FIND YOU AND ROTATE YOUR KEYS
There is No Place like
127.0.0.1 || ::1
127.0.0.1 → 192.168.0.0/24
127.0.0.1 → 192.168.0.0/16

- **Infrastructure**
  - Device count approaches $n!$
  - Network and bandwidth requirements
  - Ever Changing landscape (kids, guests, etc)

- **Security**
  - IoT
  - Personal Information

- **Configuration**
  - Different personnas
  - You are not root!
MY OCD SENSES
ARE TINGLING
An Opinionated Approach to DevOps @ Home
Trade Offs

- Security
- Convenience
- Usability
- Hackability
- Software License
Home Network

- Ubiquiti EdgeRouter X
- Wifi Routers, either:
  - Two access points
  - One access point with support for multiple isolated networks
Network Topology

ISP Modem

Ubiquiti EdgeRouter X

Wired IoT Network

Wireless IoT Network

Wired Home Network

Wireless Home Network
Features of This Setup

- Ubiquiti EdgeRouter X
  - < $50
  - 2 Isolated wired networks
  - 2 Isolated wireless networks
- Home Networks are semi-isolated
- IoT Networks are semi-isolated
- ✔ Traffic from Home → IoT
- ❌ Traffic from IoT → Home

Reference: https://github.com/mjp66/Ubiquiti/
Configuration Management

- OS Configuration
- DNS
Configuration Management - OS
PlaaS - Personal IaaS

- Provisioning: Terraform
- Orchestration: Ansible
- Dynamic DNS: DuckDNS.org
- Alerting: Slack (via slacktee)
- Chatbot: ErrBot

https://github.com/alghanmi/my-debian-box
SlackTee Alerts

#!/bin/bash
if [ -f /var/run/reboot-required ]; then
    echo "Reboot Required on $(hostname) since $(stat --format=%z /var/run/reboot-required)" | \
    ~/bin/slacktee.sh -c "alerts" -a "danger" -t "Reboot Required"
fi
apt-listchanges

apt (1.6-alpha8) UNRELEASED; urgency=medium

APT now verifies that the date of Release files is not in the future. By default, it may be 10 seconds in the future to allow for some clock drift.

Two new configuration options can be used to tweak the behavior:

   Acquire::Check-Date
   Acquire::Max-DateFuture

These can be overridden in sources.list entries using the check-date and date-future-max options. Note that disabling check-date also disables checks on valid-until: It is considered to mean that your machine's time is not reliable.

-- Julian Andres Klode <juliank@ubuntu.com>  Mon, 12 Feb 2018 12:53:18 +0100
### Cryptocurrency Market Tickers

Bittrex market ticker @ 2018-01-18 15:55

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BTC-ADA</td>
<td>BTC-ETH</td>
</tr>
<tr>
<td>5.895E-5</td>
<td>0.0915228</td>
</tr>
<tr>
<td>USD-ETH</td>
<td>USD-BTC</td>
</tr>
<tr>
<td>1078.35</td>
<td>11750.01</td>
</tr>
</tbody>
</table>
Dotfiles

Yet Another Dotfile Manager (yadm)

- vim
- tmux
- ssh
- gpg
- zsh
- ....

MY PRECIOUS
Yet Another Dotfile Manager (YADM)

- A wrapper around git designed for dotfiles
- Git syntax
- Single Repository
- Host-aware
- Encrypt and track confidential files

Reference: https://thelocehiliosan.github.io/yadm/
Yadm in a Nutshell

$ yadm init

$ yadm add ~/.vimrc

$ yadm commit

$ yadm remote add origin git@github.com/<username>/dotfiles

$ yadm push -u origin master

Example: [https://github.com/alghanmi/dotfiles](https://github.com/alghanmi/dotfiles)
How it Works

Updating joel-porquet/zsh-dircolors-solarized@master... Done. Took 1s.
Updating mafredri/zsh-async@master... Done. Took 0s.
Updating robbyrussell/oh-my-zsh@master... Done. Took 1s.
Updating rupa/z@master... Done. Took 1s.
Updating sindresorhus/pure@master... Done. Took 1s.
Updating supercrabtree/k@master... Done. Took 0s.
Updating zlsun/solarized-man@master... Done. Took 1s.
Updating zsh-users/zsh-autosuggestions@master... Done. Took 0s.
Updating zsh-users/zsh-history-substring-search@master... Done. Took 1s.
Updating zsh-users/zsh-syntax-highlighting@master... Done. Took 1s.
Bootstraping Vim
Bootstrapping tmux
Already up to date.

~ 20s

~

yadm status

On branch master
Your branch is up to date with 'origin/master'.

nothing to commit (use -u to show untracked files)

~
YADM Bootstrap File

https://github.com/alghanmi/dotfiles/blob/master/.yadm/bootstrap
Autobooks

Borrow Audiobooks from the Public Library
Overdrive Books

- Part of Public Library membership
- Borrow Audio-books and eBooks
- Convert Audio-books into Podcasts

- https://github.com/alghanmi/PodcastFeedGenerator
Advise

- Use **gpg-agent** instead of **ssh-agent**
  - Key signing party @ SCaLE
- Enable 2FA and FIDO
  - YubiKey in the Expo Hall
- Consider and **Anti-Malware** and **Storage Security** solution
  - Symantec Cloud Workload Protection in Expo Hall
TeenOps
TeenOps

- Agile methodology for completing responsibilities
- Homework
- Chores
- Rewards
- Visibility

- For the record, I like Kanban more than Scrum
Homework

Calendaring
Todos
Tracking
Homework Intake Flow

canvas

Google

todoist
Homework Intake Flow

IFTTT:
https://ifttt.com/applets/215303p-automatically-turn-your-google-calendar-events-into-todoist-tasks

Mosab Homework

- [ ] Science Energy Diagram  Monday
- [ ] Pg. 239 # 7 - 20  Tuesday
- [ ] Read Giver Ch. 18  Thursday

Add Task  Cancel
Homework & Chore Completion Flow
Future Work

- Parent Portal does not have API support
- Use Errbot for calculating rewards
- Switch to Discord
Thank You