...Your Instructor...

* PhD student - Power control for HPC systems
* 20+ years coding for hire
* 6.5 years contracting in DC metro area
* 3 years interning with LLNL
What are we trying to do here?

- Department Goals
- Instructor Goals
- Student Goals

Image from Despair Inc. https://despair.com
SMART Goals

* Communicate project status and risks
* Effectively use Git, python, bash, etc
* Write a full stack web application
* Reason about solution designs
Approach

- Regular Lecture + office hours
- Implementation of a full stack web application
- Simulated management
Evaluation Plan

- Term Project
- Incrementals
- Code Reviews
- Weekly Status
- Daily Checkpoint
- Tests
No Plan Survives Contact with Reality

- Be self aware
- Start early
- Get help early
- The sooner we know, the more we can do

Life happens - choose to be flexible
Where to go for Information and Help

* Course website: https://www.cs.uoregon.edu/Classes/17W/cis322/index.php
* Your peers
* Piazza
* Your instructor and GTF
  * Office hours will be held in DES 100
LOST Kick-off Meeting

January 10, 2017
Meeting Agenda

- About OSNAP
- High-level Project Description
- Milestones and Deliverables
- OSNAP Development Environment
- Developer Reporting Requirement
- First Deliverable
Organizational Mission

The Office of Strategic National Alien Planning (OSNAP) is charged with planning for an executing plans related to real and imagined extraterrestrial encounters.

The Division Overseeing Information Technology (DOIT) supports the overall OSNAP mission by providing computational solutions.
Logistical Operations Service Tracker

- LOST provides a single point of truth for OSNAP asset location and ownership.
- LOST is central to executive management’s risk management and mitigation initiatives.
- LOST will be operated as a web application.
- Operations and maintenance will be transitioned to DOIT after development.
Engagement Structure

- Project Manager will provide
  - Daily update to DOIT
  - Weekly update to executive management
  - Liaison between stakeholders and dev

- Phase 0
  - Assess contractor suitability

- Phase 1
  - Initial system delivery
Phase 0 Deliverables

- Demonstration contractor can use OSNAP environment
- Demonstration contractor can migrate OSNAP legacy data
- Demonstration contractor can make a web application
- Demonstration contractor can meet OSNAP documentation requirements
Phase 1 Deliverables

- Regular feature demos
  - REST Web Service
  - Automated Testing
  - Feature Set A
  - Feature Set B
  - Feature Set C

- Final delivery to DOIT operations
  - Documentation complete
  - Tests complete
  - Code complete
Development Environment

- OSNAP provides an OVA of the standard system image
- Contractor code must run as an unprivileged user on the image for OSNAP acceptance
- Updates to the image are possible but require OSNAP approval, which may take a while
GitHub will be used to host code and other deliverables for review.

Repositories will be public.

Commit logs are important, commit early and often.
Technology Stack

- Web Server: Apache Httpd 2.4.25 with mod_wsgi
- Framework: Flask
- Language: Python 3.5.2
- Crypto: PyCryptodom
- User Auth: WHO
- Database: Postgres 9.5.x
  - Procedure Language: pgSQL
Daily Reporting

- Reporting to be done via Development Experience Reporting Platform (DERP)

- Daily reporting period 6am to 6am Pacific Time

- If DERP is unavailable, submit via email
  - Subject line: CIS322 - Daily Status MM/DD
  - email to: dellswor@cs.uoregon.edu
Weekly Reporting

- Reporting to be done via Development Experience Reporting Platform (DERP)
- Weekly reporting period 6am Monday to 6am Monday Pacific Time
- If DERP is unavailable, submit via email
  - Subject line: CIS322 - Weekly Status MM/DD
  - email to: dellswor@cs.uoregon.edu
Accessing DERP

http://petunia.cs.uoregon.edu:8080/derp

DERP uses GitHub credentials for authentication

On first login, you must associate your GitHub credential with your Duck Id

Changing the association of GitHub and Duck Id requires manual intervention
sign up for DERP!

Your GitHub account is not associated with a DERP developer... Please create an account

GitHub Username: dellswor

Role: developer

UO Duck ID:

dellswor

CIS 322 GitHub Repo URL:

https://github.com/dellswor/lost.git

Email:

dellswor@cs.uoregon.edu

Create User
First Deliverable

- Demonstration contractor can use OSNAP environment

- Requirement will be satisfied by a shell script that:
  - Downloads, builds, and installs Postgres
  - Downloads, builds, and installs Apache Httpd

- Script will take in the installation prefix to use for both Postgres and Apache Httpd

- Script will be implemented in bash