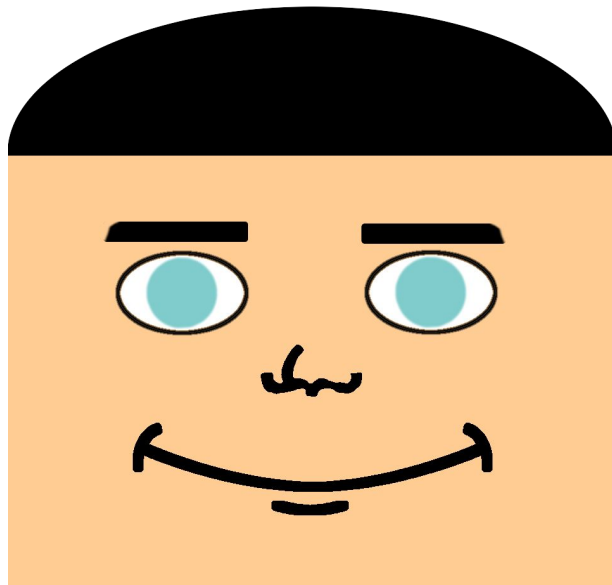# Otto the Grader

Autograding with elegance since 2016

The Problem

- Has grading ever got you down?
- Do long nights of reading badly-written student code and trying to figure out their bizarre errors ever make you feel miserable?
- Do late-night grading sessions drive you nuts until you feel like you're on the verge of developing a serious drinking problem?
- We have the solution.

The Solution: Otto.

He is the hero we need.

So who is Otto?

- Otto is a sophisticated piece of cluster-management software consisting of a central command-and-control server and any number of client bots ("Otto-bots").
- As long as the server and at least one Otto-bot are running, Otto will run to completion.
- All you have to do is run Otto from the command line, and then you will be free to sit back and relax as he takes care of everything for you!

It beats manual grading, hands-down.

Some questions you probably have...

- How can Otto possibly be trusted to properly grade up to hundreds of student assignments??
- How can you trust him not to veer horribly off course??
- How can you be sure that you will get all the results that your panicking students are counting on you to deliver??

"Two more minutes? They could be miles off course!"
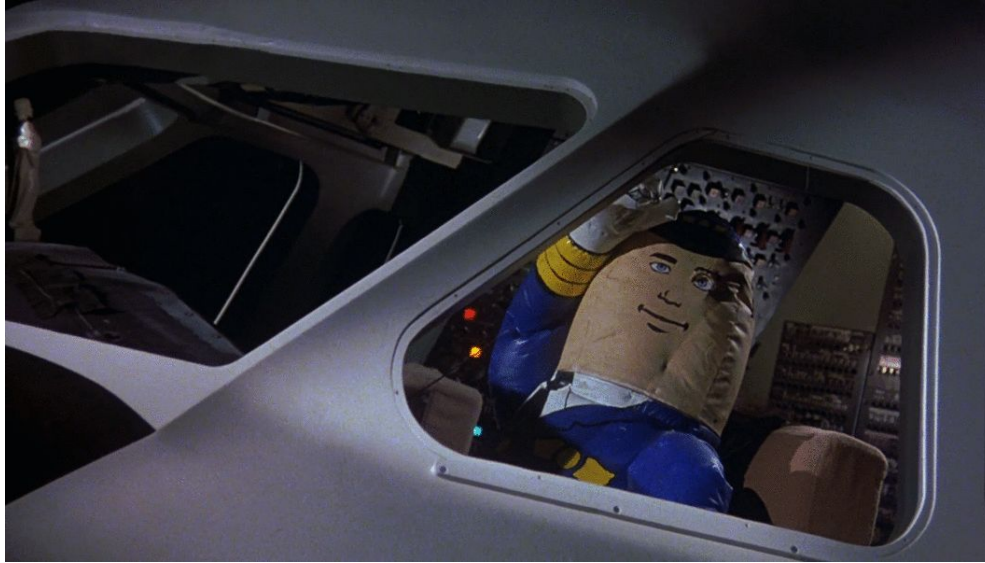
Don't worry. You can count on Otto.

- Otto's server component takes in:
  - a directory with student assignments to be graded
  - another directory with any files needed for "otto-mated" testing (such as Makefiles, grading scripts, and interface files)
  - a text file containing a single command (this can be a command to run a grading script)
- The server and clients exchange information through a variety of different sockets following different communication paradigms.
- The clients receive all necessary information from the server, and split up the work of running the given command on student code.

You might be thinking, "Surely you can't be serious!"

Let us convince you.

Welcome to a brave new world.

Welcome to Otto's world.