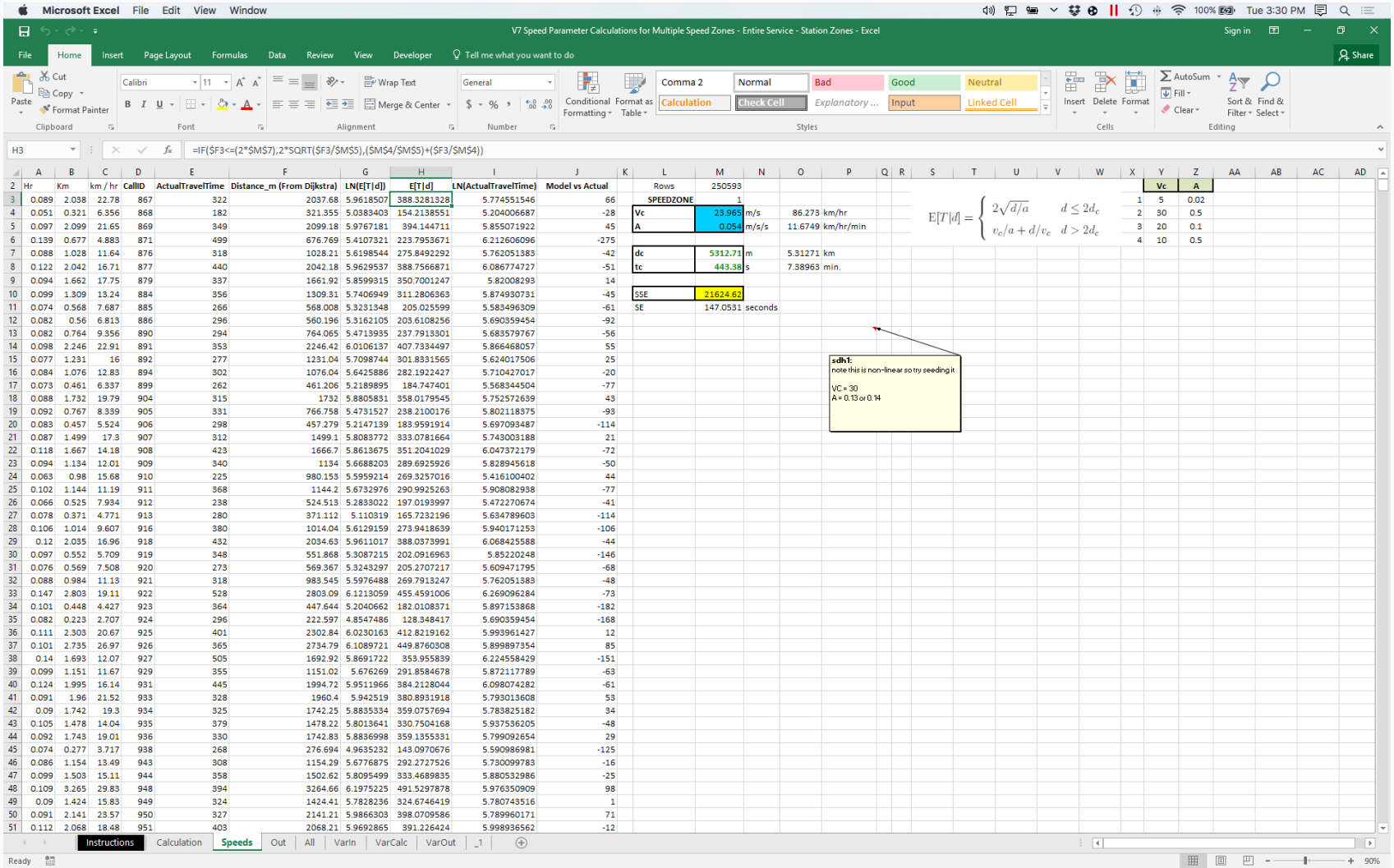
A talker on Docker:

How containers can make your work more reproducible, accessible, and ready for production.

Finbarr Timbers, Analyst, Darkhorse Analytics

Three stories.

One: Moving a nonlinear regression from Excel to Python.



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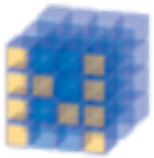
The solution:



NumPy

Base N-dimensional array package

SciPy library

Fundamental library for scientific computing

One: Moving a nonlinear regression from Excel to Python.

120 lines of code later, I was done. 10000x speedup.

But…

“Hey Finbarr, can you help? The code doesn’t seem to run.”

Two.

2. Data scientist needs to run Tensorlfow for 1 000 000 epochs.

Three

3. We need deploy a Python application to a client's system if they don't have python installed?

Is there common thread?

Solution?

Fiddle with your computer until it works!

If only there was something better...

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6. Historical— works forever.

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- Less fragile
- Drop: “daemons we don’t need, virtualization layers, duplicated functions, large iamges”

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6. Oh, BTW, the new search service is a node.js app, that's cool, right?

Easy to deploy


docker

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Demos!

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4. Can run on bare metal (Docker v. Heroku)

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Docker CLI basics

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- tag it `docker commit -m "installed redis server"` `docker images`

expose to SQL Server

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- show how Docker fixes it (should work on non-OS X systems)

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- works on Windows
- API-ify it and deploy to GCE

Example app

- time it

```
root♫precise64:~# docker stop 8222
root♫precise64:~# time docker start 8222
    real    0m0.150s

root♫precise64:~# time service redis-server start
Starting redis-server: redis-server.
    real    0m0.165s

root♫precise64:~# time docker run -p 6379 -d -i -t jbarra
    real    0m0.147s
```

Install service manually

Now, let’s automate it

Sample Dockerfile:

- Now, edit the code and redploy

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- Layering dockerfiles

Competitors

Pricing

- Check out Heroku

Security

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Links