



# Snake Charmer

The batteries-included  
workbench for data science.

*Portable. Powerful. Python.*

<https://github.com/snake-charmer-devs/snake-charmer>

<http://andrewclegg.github.io/>

# How it works

*Your computer*



VAGRANT



# How it works

*Your computer*

*Snake Charmer virtual machine*



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*IPython notebook server, Pandas, NumPy, SciPy, Scikit-Learn, PyMC, Matplotlib, Seaborn, MPLD3, Statsmodels, Lifelines, NLTK, DEAP, Gensim, Cython, Numba, Theano, Numexpr, SymPy, PyTables etc. etc. etc.*



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*R, Octave, Stan, Vowpal Wabbit etc. (+ Python wrappers)*



VAGRANT



# Four step installation

1. Install VirtualBox
2. Install Vagrant
3. Clone Snake Charmer repo
4. Type `"vagrant up"`

Whole environment built from Salt recipe.

Works the same on Windows, Mac or Linux.

# **Demo time!**

Brace yourselves.

# Other benefits...

- ❖ Reproducibility
- ❖ Disposability
- ❖ Safety
- ❖ Shareability
- ❖ Elasticity

No more bullet lists, I promise.



# Reproducibility

Oblivious to hardware, OS, library differences.

Snake Charmer just doesn't care.

# Disposability

*"Treat your VMs like cattle, not pets"*

If it gets sick, shoot it in the head.

# Safety

Take a snapshot of whole environment --  
Ubuntu, Python, your code, your data.

Try something experimental.

If it doesn't work, roll back to snapshot.

# Shareability

Bundle up whole environment.

Send to colleagues. Share via Vagrant Cloud.

Build your own customized VM templates.

# Elasticity

Sandbox resource usage on your poor laptop.

Or replicate your dev environment on a massive server farm.

*"Write once, run anywhere"*

# Questions?

Find me here: <http://andrewclegg.github.io/>

Or here: [https://twitter.com/andrew\\_clegg](https://twitter.com/andrew_clegg)

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