## Hillsboro Python Machine Learning Meetup

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Senior Software Engineer

**Senior Data Scientist** 

DAT Wi-Fi

**Username: DAT Guest** 

Password: beaverton dat

- 6:00 6:40 pm: Pizza, water only and networking.
- 6:40 6:45 pm: Welcome message by Ernest Bonat, Ph.D.
- 6:45 8:00 pm: Presentation and open discussions.
- 8.00 pm 9.00 pm: Coding and learning session. Bring your Python development laptop!

## Why did I create this meetup?

- Bad traffic to Portland downtown.
- Very hard to find a parking lot.
- 3. Bad Python presentation code and old used Python tools.

### Our Meetup Mission:

1. "Come, Listen, Code and Learn"

- Finding and presenting best practices of Machine Learning using Python Data Ecosystem.
- 3. Create great networking place for Hillsboro-Beaverton Data Scientists.

# **Today Presentation**

"Advanced Image Classification using CNNs with Keras and TensorFlow"

### 15 Quiz Questions for Fun:

- 1. Faster Python object is?
- 2. Faster parallel computing library for analytic computing is?
- 3. Faster Grid Search CV library is?
- 4. Faster dynamic Python compile is?
- 5. Faster Python library to load terabyte of data is?
- 6. Faster first Python ML algorithm to use for data classification and regression is?
- 7. Faster second Python ML algorithm to use for data classification and regression is?
- 8. Faster first Python ML algorithm to use for image classification is?

- 9. Faster second Python ML algorithm to use for image classification is?
- 10. What are the most four popular ML libraries in Python today?
- 11. Faster way to accelerate image processing in Python today is?
- 12. What are the most three popular ML image processing libraries in Python today?
- 13. What is the most popular computer vision library for Python today?
- 14. Faster ML image processing between Keras/TensorFlow and just TensorFlow is?
- 15. What is the best programming language for data analytics today? Python or R?
- 16. Is OK to apply ANN (Deep Learning) all the time for any data analytics?

### Source code:

https://github.com/ebonat/hillsboro\_machine\_learning\_06\_2018

TensorFlow – An open source machine learning framework for everyone

https://www.tensorflow.org/

Keras - is a high-level neural networks API, written in Python and capable of running on top of TensorFlow, CNTK, or Theano. It was developed with a focus on enabling **fast experimentation** https://keras.io/

What is Convolutional Neural Networks (CNNs)? – A deep, feed-forward Artificial Neural Network (ANN).

http://cs231n.github.io/convolutional-networks/

E:\Visual WWW\Python\01 PYTHON MACHINE LEARNING EBOOKS\eBooks and Source Code\Mastering TensorFlow 1.x - Armando Fandango\PDF

Fashion-MNIST Dataset

https://github.com/zalandoresearch/fashion-mnist

Real Production Task: Read and understand the following paper, and create a generic Python library with Keras/TensorFlow to be use in the company for image classification.

"Convolutional Neural Networks in Python with Keras"

https://www.datacamp.com/community/tutorials/convolutional-neural-networks-python