

# **“Advanced Python Programming for Everybody”**

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## Module 4 Source Code

[https://github.com/ebonat/intel\\_module\\_4](https://github.com/ebonat/intel_module_4)

## Hillsboro Python Machine Learning Meetup

<https://www.meetup.com/Hillsboro-Python-Machine-Learning-Meetup/>

Title: "Advanced XGBoost Algorithm for Data Classification and Regression"

- Tuesday, May 29, 2018

6:00 PM to 9:00 PM

- DAT Solutions

8405 SW Nimbus Avenue, Beaverton, OR ([edit map](#))

- Meeting Agenda:

6:00 – 6:40 pm: Pizza, water and networking.

6:40 – 6:45 pm: Welcome message by Ernest Bonat, Ph.D.

6:45 – 8:15 pm: Presentation and open discussions. ““Advanced XGBoost Algorithm for Data Classification and Regression”” by Ernest Bonat, Ph.D., Senior Data Scientist.

## Module 4. Extract-Transform-Load (ETL) System Design and Development

Extract-Transform-Load (ETL) – process of extracting data from source systems and bringing it into other source systems.

1. Extract – the desired data is identified and extracted from many different sources, including **database** systems and applications (MySQL, SQLite, MongoDB, Oracle, SQL Server, JSON, CSV, XML, etc.)
2. Transform – based on business requirements the data is transform (**pre-processing or clean up**) in another format or structure (in Data Science this transform is done using Python **pandas** library – very important!)
3. Load – the data is loaded into the final target source (database, files (JSON, CSV and XML), etc.)

## Exercise 1

Create a simple Python program to generate a JSON “Publisher Report” file from `magazine`.`publisher` MySQL table.