**Evolutionary Algorithms:  
 [David C. Alvarez Charris , david13.ing@gmail.com]**

**Evolution Conceptual Basis:**

* **Great Simple and complete explanation of Selection methods, Crossover and mutation (**<http://boxcar2d.com/about.html>**)**
* **Evoluationary Algo. Simple example (**[**http://lethain.com/genetic-algorithms-cool-name-damn-simple/**](http://lethain.com/genetic-algorithms-cool-name-damn-simple/) **)**
* **Selection Methods (**[**https://en.wikipedia.org/wiki/Selection\_(genetic\_algorithm)**](https://en.wikipedia.org/wiki/Selection_(genetic_algorithm)) **AND** [**http://www.obitko.com/tutorials/genetic-algorithms/selection.php**](http://www.obitko.com/tutorials/genetic-algorithms/selection.php) **)**
* **Crossover Methods (**[**https://en.wikipedia.org/wiki/Crossover\_(genetic\_algorithm)**](https://en.wikipedia.org/wiki/Crossover_(genetic_algorithm)) **)**
* **Mutation rate Concept (**[**https://www.researchgate.net/post/Why\_is\_the\_mutation\_rate\_in\_genetic\_algorithms\_very\_small**](https://www.researchgate.net/post/Why_is_the_mutation_rate_in_genetic_algorithms_very_small) **)**

**Evolution Useful:**

* **Robot Generation Through Artificial Evolution (**[**http://robogen.org/**](http://robogen.org/) **AND** [**http://www.genecraft-project.com/index.php?page=downloads**](http://www.genecraft-project.com/index.php?page=downloads) **)**
* **Distributed Evolutionary Algorithms in Python (**[**https://github.com/deap/deap**](https://github.com/deap/deap) **AND** [**http://vision.gel.ulaval.ca/~cgagne/pubs/deap-gecco-2012.pdf**](http://vision.gel.ulaval.ca/~cgagne/pubs/deap-gecco-2012.pdf) **AND** [**http://www.sigevolution.org/issues/pdf/SIGEVOlution0602.pdf**](http://www.sigevolution.org/issues/pdf/SIGEVOlution0602.pdf) **)**

**Python Basics:**

* **Numpy tutorial (**[**https://docs.scipy.org/doc/numpy-dev/user/quickstart.html**](https://docs.scipy.org/doc/numpy-dev/user/quickstart.html) **)**
* **Numpy for Matlab users (1.** [**http://mathesaurus.sourceforge.net/matlab-numpy.html**](http://mathesaurus.sourceforge.net/matlab-numpy.html) **,2.** [**http://scipy.github.io/old-wiki/pages/NumPy\_for\_Matlab\_Users.html**](http://scipy.github.io/old-wiki/pages/NumPy_for_Matlab_Users.html) **,3.** [**http://www.cert.org/flocon/2011/matlab-python-xref.pdf**](http://www.cert.org/flocon/2011/matlab-python-xref.pdf) **)**
* **MatPlotLib Tutorial (**[**http://matplotlib.org/users/beginner.html**](http://matplotlib.org/users/beginner.html) **)**
* **MatPlotLib Specific “problems” tutorials (**[**http://matplotlib.org/users/shell.html**](http://matplotlib.org/users/shell.html) **&&** [**http://matplotlib.org/faq/usage\_faq.html#what-is-a-backend**](http://matplotlib.org/faq/usage_faq.html#what-is-a-backend) **)**
* **Pythons complete tutorials (**[**http://www.tutorialspoint.com/python/index.htm**](http://www.tutorialspoint.com/python/index.htm) **)**
* **How to execute other python program within a python program? (**[**https://mail.python.org/pipermail/tutor/2002-September/017368.html**](https://mail.python.org/pipermail/tutor/2002-September/017368.html)**)**