

# Programming: Intel Graphics Compiler, Bzip2 in Rust, Ract, YAML, Python and YAML

By *Roy Schestowitz*

Created *12/06/2019 - 4:10am*

Submitted by Roy Schestowitz on Wednesday 12th of June 2019 04:10:18 AM Filed under [Development](#) [1]

•

## [Intel Graphics Compiler 1.0.8 Released With LLVM 9 & GCC 9 Fixes](#) [2]

The open-source folks maintaining the LLVM-based Intel Graphics Compiler for use by their NEO compute stack for Linux released this week another update.

Intel Graphics Compiler 1.0.8 is this latest update, which is primarily focused on offering up the remaining fixes for being built by the GCC 9.1 stable compiler and for interfacing with the in-development LLVM Clang 9.0 compiler stack. IGC continues to make use of the LLVM infrastructure to help with the heavy lifting around this graphics compiler. IGC 1.0.8 is currently passing "99.87%" of the certification tests when using LLVM/Clang 9.

•

## [Bzip2 in Rust: porting the randomization table](#) [3]

Bzip2's compression starts by running a Burrows-Wheeler Transform on a block of data to compress, which is a wonderful algorithm that I'm trying to fully understand. Part of the BWT involves sorting all the string rotations of the block in question.

Per the comment I cited, really old versions of bzip2 used a randomization helper to make sorting perform well in extreme cases, but not-so-old versions fixed this.

This explains why the decompression struct `DState` has a `blockRandomised` bit, but the compression struct `EState` doesn't need one. The fields that the original macro was pasting into `EState` were just a vestige from 1999, which is when Bzip2 0.9.5 was released.

•

## [\[Older\] react-content-marker Released ? Marking Content with React \[4\]](#)

Last year, in a React side-project, I had to replace some content in a string with HTML markup. That is not a trivial thing to do with React, as you can't just put HTML as string in your content, unless you want to use `dangerouslySetInnerHTML` ? which I don't. So, I hacked a little code to smartly split my string into an array of sub-strings and DOM elements.

More recently, while working on Translate.Next ? the rewrite of Pontoon's translate page to React ? I stumbled upon the same problem. After looking around the Web for a tool that would solve it, and coming up short handed, I decided to write my own and make it a library.

- ## [10 YAML tips for people who hate YAML \[5\]](#)

There are lots of formats for configuration files: a list of values, key and value pairs, INI files, YAML, JSON, XML, and many more. Of these, YAML sometimes gets cited as a particularly difficult one to handle for a few different reasons. While its ability to reflect hierarchical values is significant and its minimalism can be refreshing to some, its Python-like reliance upon syntactic whitespace can be frustrating.

However, the open source world is diverse and flexible enough that no one has to suffer through abrasive technology, so if you hate YAML, here are 10 things you can (and should!) do to make it tolerable. Starting with zero, as any sensible index should.

- ## [Creating a Django App on Ubuntu Server \[6\]](#)

Django is a common platform for developing websites, web applications and web APIs. There are many advantages to using the Django framework for your project as your tool and if you're not sure it's the right fit, you need only to look to the many big name brands using Django in their stack.

Deploying Django to a production environment for the first time can be a daunting task. Often, developers will launch a Linux instance on the cloud for their production environment.

In this tutorial, we'll show you how to launch Django in production, using a fresh Ubuntu instance.

- ## [Recognizing a face using JavaScript \[7\]](#)

When you look around for ways to identify faces, you come up with a host of solutions. Many are generic, some are interfaces to existing frameworks. For JavaScript, you have a few popular ones to choose from. You may even be confused by the array of solutions. Even for

face recognition you have several options. Many, most actually, are for Python but you can also find a few in JavaScript. Frameworks that are aimed specifically at face recognition are `face.js` and `face-recognition.js`. The latter is considered obsolete though. The smallest, in terms of code, is `pico.js`. With about 200 lines of code it can detect your own face using your webcam. The Pico code comes with a trained set already, which means that it will not improve while you are using it. For the curious, the pre-trained classification cascades are available on their GitHub repository. If you do want to train it yourself, there is a `learn` function you can use. This is a C program available on GitHub. This is a long process to complete making it an interesting exercise rather than something useful. One of the more interesting APIs is `face-api.js`, this one uses `TensorFlow.js` for the machine learning part.

- [Call for Speakers - Montréal-Python 75: Funky Urgency](#) [8]

Montreal-Python will be hosting its last event before the summer break. This is also a special moment because it's our 75th event!

- [High quality automated docker hub push using Github, TravisCI and pyup for Python tool distributions](#)[9]

Let's say you want to distribute a Python tool with docker using known good dependency versions ready to be used by end users... In this article you will see how to continuously keep up to date a Docker Hub container with minimal managing effort (because I'm a lazy guy) using github, TravisCI and pyup.

- [PyCoder's Weekly: Issue #372 \(June 11, 2019\)](#) [10]

- [Our Favorite PyCon 2019 Presentations](#) [11]

## [Development](#)

---

Source URL: <http://www.tuxmachines.org/node/124789>

### Links:

- [1] <http://www.tuxmachines.org/taxonomy/term/145>
- [2] [https://www.phoronix.com/scan.php?page=news\\_item&px=Intel-Graphics-Compiler-1.0.8](https://www.phoronix.com/scan.php?page=news_item&px=Intel-Graphics-Compiler-1.0.8)
- [3] <https://people.gnome.org/~federico/blog/bzip2-in-rust-randomization-table.html>
- [4] <http://adrian.gaudebert.fr/blog/post/react-content-marker-released-marking-content-with-react>
- [5] <https://www.redhat.com/sysadmin/yaml-tips>

- [6] [https://linuxhint.com/create\\_django\\_app\\_ubuntu/](https://linuxhint.com/create_django_app_ubuntu/)
- [7] [https://linuxhint.com/recognize\\_face\\_javascript/](https://linuxhint.com/recognize_face_javascript/)
- [8] <https://montrealpython.org/en/2019/06/mp75-cfp/>
- [9] <http://davidemoro.blogspot.com/2019/02/automated-docker-hub-push-travisci-pyup-python.html>
- [10] <https://pycoders.com/issues/372>
- [11] <https://www.caktusgroup.com/blog/2019/06/11/favorite-pycon-2019-presentations/>