Programming Leftovers

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- **Frankenstein JVM with flavour - jlink your own JVM with OpenJDK 11** **[2]**

  While you can find a lot of information regarding the Java "Project Jigsaw", I could not really find a good example on "assembling" your own JVM. So I took a few minutes to figure that out. My usecase here is that someone would like to use Instana (non free tracing solution) which requires the java.instrument and jdk.attach module to be available. From an operations perspektive we do not want to ship the whole JDK in our production Docker Images, so we've to ship a modified JVM. Currently we base our images on the builds provided by AdoptOpenJDK.net, so my examples are based on those builds. You can just download and untar them to any directory to follow along.

- **KDE Craft Packager on macOS** **[3]**

  In Craft, to create a package, we can use craft --package after the compiling and the installing of a library or an application with given blueprint name.

  On macOS, MacDMGPackager is the packager used by Craft. The MacDylibBundleris used in MacDMGPackager to handle the dependencies.

  In this article, I?ll give a brief introduction of the two classes and the improvement which I?ve done for my GSoC project.

- **It is coming alive** **[4]**

  After digging for around a month and a half, I can finally do some selections with the

Magnetic Lasso tool, which I wrote with utter laziness as I would say. Though it still demands a lot of work to be done, so it will be just polishing the existing code into perfection for the next one and half month.

- **Humble Book Bundle: Programmable Boards by Make Community [5]**

  If you are interested in learning more about programmable boards, such as Arduino, and are looking for a crash course, you can pick up much on the topic by not just reading about the topic but also doing some hands-on learning. You can do just that, along with paying very little to do so when you buy the Humble Book Bundle: Programmable Boards by Make Community. You?ll pay as little as $1 for books that explain getting started with IoT, Arduino projects, mBot, and more. You?ll get instruction and hands-on training in several areas. Buy the bundle and receive only the books you really need to learn more about programmable boards.

- **Building a computer - part 1 [6]**

  Off-hand I think the most complex projects I've built have been complex in terms of software. For example I recently hooked up a 933Mhz radio-receiver to an ESP8266 device, then had to reverse engineer the protocol of the device I wanted to listen for. I recorded a radio-burst using an SDR dongle on my laptop, broke the transmission into 1 and 0 manually, worked out the payload and then ported that code to the ESP8266 device.

  Anyway I've decided I should do something more complex, I should build "a computer". Going old-school I'm going to stick to what I know best the Z80 microprocessor. I started programming as a child with a ZX Spectrum which is built around a Z80.

  Initially I started with BASIC, later I moved on to assembly language mostly because I wanted to hack games for infinite lives. I suspect the reason I don't play video-games so often these days is because I'm just not very good without cheating

  Anyway the Z80 is a reasonably simple processor, available in a 40PIN DIP format. There are the obvious connectors for power, ground, and a clock-source to make the thing tick. After that there are pins for the address-bus, and pins for the data-bus. Wiring up a standalone Z80 seems to be pretty trivial.

- **Python Machine Learning Tutorial: Predicting Airbnb Prices [7]**

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DevOps for introverted people **[8]**

- **PSF GSoC students blogs: Week 5** **[9]**

- **PSF GSoC students blogs: Week 6** **[10]**

- **PSF GSoC students blogs: Coding week #6** **[11]**

- **Week 6 Check-In** **[12]**

- **Week 5 Check-In** **[13]**

    At the start of this week, I revisited the box-into-capsule test and re-implemented a different algorithm. Instead of representing the capsule as two hemispheres and a cylinder, my mentor suggested to see it as a line segment defined the by its two endpoints. So, the algorithm finds the closest point on the box to the line segment, and then tests for intersections accordingly.

- **`make -j5 kritaflake`** **[14]**

    At the end of June I finished copy-on-write vector layers. From the very beginning, I have been researching into possibilities to make kritaflake implicitly sharable. In that post I mentioned the way Sean Parent uses for Photoshop, and adapted it for the derived d-pointers in Flake.

- **Working With Dictionaries In Python** **[15]**

    Dictionaries in pythons are a collection of key value pairs. They are very similar to JSON data type in JavaScript. Dictionaries are indexed, they can be modified and they are no ordered. This makes it very flexible and useful. Since dictionary items can be accessed with keys instead of indexes, dictionaries are widely used in external data-driven programs and apps.

- **What is a golden image?** [16]

  If you?re in quality assurance, system administration, or (believe it or not) media production, you might have heard some variation of the term gold master, golden image, or master image, and so on. It?s a term that has made its way into the collective consciousness of anyone involved in creating one perfect model and then producing many duplicates from that mold. That?s what a gold master, or golden image, is: The virtual mold from which you cast your distributable models.

  In media production, the theory is that a crew works toward the gold master. This final product is one of a kind. It looks and sounds the best a movie or an album (or whatever it is) can possibly look and sound. Copies of this master image are made, compressed, and sent out to the eager public.

  In software, a similar idea is associated with the term. Once software has been compiled and tested and re-tested, the perfect build is declared gold. No further changes are allowed, and all distributable copies are generated from this master image (this used to actually mean something, back when software was distributed on CDs or DVDs).

Development

Source URL: http://www.tuxmachines.org/node/125778

Links:
[1] http://www.tuxmachines.org/taxonomy/term/145
[2] http://sven.stormbind.net/blog/posts/misc_jigsaw_your_jvm/
[3] http://kde.inoki.cc/2019/05/26/Craft-packager/
[4] https://hellozee.github.io/it_coming_alive/
[5] https://www.maketecheasier.com/humble-book-bundle-programmable-boards-by-make-community/
[6] https://blog.steve.fi/building_a_computer___part_1.html
[7] https://www.dataquest.io/blog/machine-learning-tutorial/
[8] https://opensource.com/article/19/7/devops-introverted-people
[9] http://blogs.python-gsoc.org/en/blogs/ironmaniiiths-blog/week-5-2/
[10] http://blogs.python-gsoc.org/en/blogs/ironmaniiiths-blog/week-6-1/
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[14] http://tusooa.github.io/2019/07/09/make-j5-kritaflake/
[15] http://www.linuxandubuntu.com/home/working-with-dictionaries-in-python
[16] https://opensource.com/article/19/7/what-golden-image