What is LGxEDU?

LGxEDU stands for Liquid Galaxy for Education.
Basically it is version of Liquid Galaxy that can run on Chromebooks/Chrome OS.

It can be controlled with Android LGxEDU application.

What is Crouton

Crouton is a set of scripts that bundle up into an easy-to-use, Chromium OS-centric chroot generator. Currently Ubuntu and Debian are supported (using debootstrap behind the scenes), but "Chromium OS Debian, Ubuntu, and Probably Other Distros Eventually Chroot Environment" doesn't acronymize as well (crodupodece is admittedly pretty fun to say, though). In other words, it is a Linux environment inside Chrome OS.

What is Crostini?

Crostini is an official project within Chromium OS to bring the Linux shell and apps to the platform *in verified mode* with clean integration, multi-layered security, and all the polish you expect from Chromium OS proper. It means that, Crostini and Crouton are pretty familliar.

What's the difference?

Crostini: Has official support, competent engineers, and code that looks less messy.

Crouton: has wider device compatibility, enables direct hardware access, and is named after an objectively tastier bread-based food item

What it has to do with Liquid Galaxy?

It has a lot! If you want to have your own Liquid Galaxy on Chromebooks or Chrome OS, those 2 guys will save you. For now, It wouldn't be possible without them. Because installing LG is through command/script, you have to write it somewhere, right? By enabling Crouton or Crostini you can do it.

Conclusion

Crouton and Crostini are great tools that makes possible installing LG and not only on Chrome OS.

Personally, I would use Crouton, because on LGxEDU wiki, there is a page about it, in Error Log, we can read that porting LG with Crostini might not be possible. And, well, I don't like Chromium OS docs.