Short Description

Blitzy is a Tex alternative with a clean, readable syntax and simple rules that can be combined to form complex layouts

Longer Description

The motivation for Blitzy came because I was fed up with the ugliness of LaTeX escape characters and the the syntactical cruft it had accumulated over the years. Sure, with practice one can get very fast with LaTeX, but it can be rewritten, simpler (or so I thought)

I was taking CS240 (Discrete Math) at the time and wanted something that could compile instantly. Something that would update in real time as I typed. I chose Java because

1) It is not as slow as people think
2) Developer time is more valuable than run time
3) Java is my mother tongue and I can rapidly prototype with it

And with some PDFBox magic, Blitzy was born. And oh, it was as fast as promised. The modifiers and syntax turned out to be as simple as I thought. The only tedious thing was having to make dummy elements like *row[bottom 10]:* if you wanted breaks between paragraphs. But with a simple macro language these things can be replaced with *paragraph:*

But what ultimately made me realize Blitzy would not be a practical tool (without tons of effort on my part) was the expression typesetting. I made expressions modular and nestable so you can do things like:

$$\sum_{i=0}^{n} x+1 \qquad \sum_{i=0}^{n} x+1 \qquad \sum_{i=0}^{n} x+1$$

But there is an entire field dedicated to making this look good, and my manual tweaking just lacked the needed nuance. There are 9000 corner cases that crop up 1% of the time that someone had to tediously repair in LaTeX. And -- I checked -- it was faster to do it in Google Docs anyway.