

919-370-0575 life.universe.42@gmail.com 4213 Farrington Road Durham NC 27707

## **Technical Skills**

Ruby on Rails, MySQL, JS/HTML, Github, SASS, Capybara, FactoryGirl, AWS, Capistrano, JQuery, Blender, Ubuntu, Python, C++, Java, Adobe Photoshop

## **Experience**

## Spoonflower - Associate Director of Engineering (Durham, 2011 - current)

I am part of a small team of full stack developers for <u>www.spoonflower.com</u>. This includes maintaining current core functionality in terms of customer shopping experiences as well as developing and releasing new front-end features for customer use. It also includes running a back-end admin site that manages the entire factory of operations.

- I was the driving force behind a new custom garment platform that is fully integrated with a proprietary printing model. I took it from proof-of-concept to its current beta state with 7000+ people invited. Using Blender and 3.js I created an interface to show the customer a 3D representation of a garment. They had the ability to select features like sleeve length and neckline and see those rendered in the interface. They would then map any fabric design to its surface, and the rendered garment would accurately represent design scale and seam placement of a completed garment. If purchased, the customer would then receive a "cut-and-sew" pattern with their design printed within the correct size sewing pattern of their chosen project. Upcoming phases of this project include a user submitted garment pattern review system, a library of user submitted project photographs, and the ability to dynamically scale the design and shift its location on the garment in the X or Y direction.
- I orchestrated a new organizational system for orders in processing in the factory which more than doubled efficiency out on the cutting floor. This entailed altering our print software to utilize barcodes, and creating a mapped cubby system that would track order item locations.
- I created and implemented mathematical calculation to rank the popularity of user submitted designs over time based on sales and social media interactions. This was used in displaying ordered results from tag searches based on the chosen product platform.

- I developed a system for tracking mechanical maintenance on printers. This provided useful statistics like a history of downtime, particular color problems linked to ink lot numbers, frequency of part replacements, and the most frequent QA fail reasons over given time spans.
- I was also the point person for any operations related procedural issues. These typically included troubleshooting and implementing new processes to streamline workflow, as well as directing management teams in how to train employees to use the systems efficiently.
- Day to day operations also included bug tracking and fixing, regular stand-ups, assisting in technical equipment management and basic IT functions.

## **Education**

2010 - University of North Carolina at Chapel Hill with a BA in Philosophy

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2006 - North Carolina School of Science and Mathematics. Graduated in the top 10% of my class.