# Patrick Bonoan

**Graphic Design Portfolio** 

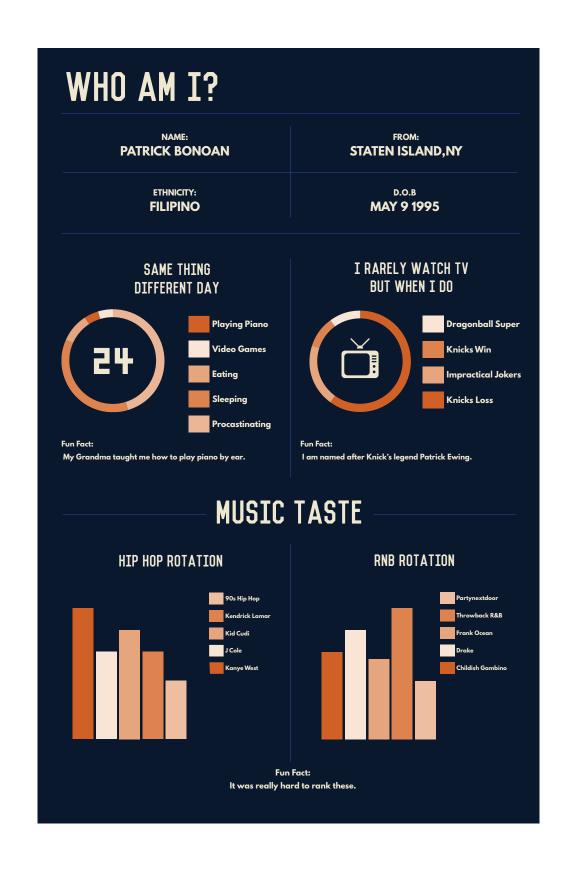
#### **About me**

My name is Patrick Bonoan. I am 21 years old and a junior at New York City College of Technology majoring Communication Design. I am Filipino but I was born and raised in Staten Island, New York. I started designing just for fun around the age of 14. The first program I used was photoshop. I have only one internship experience so far and I am looking to further my career this upcoming summer. I am still trying to define my style and finding my niche as a designer.



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# **Typography**





the Stonewall National Mon-heard. ument, Battery Park, Tomp-kins Square Park, Wash-

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### Layouts





#### **Naturally Colored Gelatin**

June 201

As consumer demand for naturally colored foods continues to gain traction, desserts like Gelatin are included in the products that Millennial moms expect to be converted from synthetic colors. In the past, developers didn't have access to a full rainbow of Natural Color solutions for Gelatin due to the inability to match synthetic colors and create 'cloud free' orange and yellow shades.

Until recently, a natural source of blue was difficult to find. Now that Sentient's Gardenia Blue and Spirulina are available, attaining brilliant Blue, Green and Purple shades naturally is possible.

Beta Carotene (natural source of orange) and Turmeric (natural source of yellow) are both water insoluble. Because they must be water soluble in dry gelatin mixes, an additional emulsification step is required. The emulsifiers typically used to convert these natural sources to water soluble tend to produce some 'cloud'. Obviously, a "cloudy" gelatin is less likely to be accepted by consumers.

A great deal of progress has been made in achieving formulations that overcome both of these challenges. And while the options available today are not all exact matches for synthetic colors, they are very close and provide excellent choices for brands ready to make the switch.



Lemon yellow can be achieved by utilizing Sensient's new proprietary solution for processing Turmeric, which does not produce



A combination of the new technology for Turmeric, with water soluble vegetable juice will produce a nice mandarin orange shade.



A close match to Red #40 can be achieved with an Anthocyanin or Beet vegetable juice.



Sensient's Gardenia Blue at a pH above 3.8 will yield a good replacement for Blue #2.



Employing Spirulina will create a close match to Blue #1, but could degrade due to pH and heat instability. If heated too much or if the pH falls below 4, the shade could fade or precipitation might occur, causing speckling.



Lime green can be achieved with a combination of either of the above blue options and Sensient's proprietary Turmeric. The shade intensity depends on the source of blue.



Anthocyanin sources such as Black Carrot and Purple Sweet Potato or Sensient's Gardenia Blue at a pH below 3.8 will produce a beautiful violet





## Panning With Natural Colors - Things to Consider

July 2016

As consumers continue to push for simple ingredients, brands are taking the leap to convert from synthetic to natural colors. As many developers know, formulating with natural colors can have its share of challenges. This is especially true for confectioners, so I wanted to share some factors in the panning process that can affect natural colors and should be considered when looking to make the switch.

In many cases, brands are looking to match a current synthetic FD&C color used with a natural alternative. If consistency of shade is to be achieved when using natural colors in a production environment, factors regarding the *Coating Syrup* such as pH, heat, water activity, water quality, and raw materials need to be controlled and monitored.

A large percentage of natural colors are affected by **pH**. An anthocyanin can range in shade from a bright pink/red to a green shade simply by modifying the **pH**. Therefore, if the pH of the coating syrup is not monitored for consistency, shade variation will be an issue.



Certain natural colors are sensitive to **heat**. Beet, for example will degrade or turn brown with exposure to high **heat**. In some processes, it has been determined that beet can tolerate a temperature of 80°C for two hours. Beyond this temperature, the color begins to degrade.

Additionally, some natural colors do not perform well in high **water activity** systems. Beet is again an example of this. If held in a high **water activity** environment for long periods of time, it will become colorless. For this reason, beet colors are not used in ready-to-drink beverage applications.

Furthermore, high mineral and heavy metal content in the water source can also affect particular natural colors. Water quality can vary greatly by region and even change depending on season of the year. Therefore, it is always recommended that a **purified water** source like distilled, deionized, or RO be utilized in the manufacture of the coating syrup.



Lastly, raw materials such as sugar source can impact outcomes in panning. A specific example would be the type of sucrose used. Sugar sourced from beets is more prone to invert compared to sucrose from a cane source. Also, components that may be added such as gums, reducing sugars, PVP, bulking agents, etc. will affect the crystallization of sugar in the panning process. If not monitored, this may lead to an excess of moisture retained in the shell. As this transient moisture moves through the shell, the crystal growth is affected. Because a sugar crystal is opaque, the increased size of sugar crystal growth makes the overall appearance more opaque, giving the appearance of color loss.

In addition to the specifics around Coating Syrup, details of a manufacturer's process should be considered when formulating with natural colors.

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# Logos





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#### **Twitter Posts**









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#### **Dunkin Donuts**





Dunk for a chance to win 2 tix to a Knicks game and a \$100 DD Card.

#HowDoUDunkSweepstakes spr.ly/6016Bb0je







What it's like to be surrounded by sweetness...









Dunk for a chance to win 2 tix to a Knicks game and a \$100 DD Card.

#HowDoUDunkSweepstakes spr.ly/6016Bb0je



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# **Photoshop**









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