# **TEXTILE ENGINEER**

Professional with training and experience in fundamental knitting methods, yarn and natural/synthetic fiber analyses, textile fiber applications, and Weaving Department evaluations.

Process optimization expert with record of improving operational efficiencies, boosting productivity, and cutting costs by thousands of dollars annually.

Data analyst with formal training and proficiencies in:

SolidWorks | VBA | JMP Software | TechText CAD | Weave It Pro | ArahPaint | AccuMark 3D | Autometrix | CLO AVA Weave | ERP Software | Minitab | Lean Six Sigma Practices

# **PROFESSIONAL EXPERIENCE**

JMJ SAFETY TEXTILES, Houston, TX, 2019–2020 PROCESS ENGINEER

Served as Weaving Department Engineer for one-piece-woven and flat fabric airbag manufacturing. Worked on production floor consisting of **125** Sulzer rapier looms and **10** Dornier air-jet looms, all with Staubli Jarcquard shedding.

- Saved company **\$25K** annually by modifying workflow processes in Weaving Department.
- Reduced number of defective products 15% by identifying needed repairs to machinery and equipment.
- Decreased time needed to make corrections to machine failures 15% by improving training provided to mechanics.
- Enhanced customer satisfaction scores 5% in 2020 by contributing to producing enhanced products.
- Improved material properties by conducting **50+** weaving trials in partnership with production department.

## TMJ CLOTHING, INC., Bowling Green, OH, 2017–2018 TEXTILE ENGINEER

Worked in Weaving Department for two-piece-woven and flat fabric clothing manufacturing. Served as team lead on production floor with **150** Satzer looms, **25** air-powered looms, and **32** electric looms.

- Cut annual expenses **25%** by automating and optimizing manual production calculations using VBA.
- Boosted productivity 10% by locating and implementing new, cutting-edge Sulzer rapier looms.
- Led **115+** tours in denim plant, providing employees and guests with a better understanding of how company used new and vintage technology to create unique clothing.

## **EDUCATION**

Bachelor of Science in Textile Engineering, University of Houston, Houston, TX, 2017

#### Key Coursework

Polymer Engineering | Textile Engineering Science | Six Sigma Quality Engineering Textile Structures: Linear Assemblies | Textile Manufacturing Processes & Systems

## Senior Design Project, Tankan (Chemical Company in China)

**Challenge:** Tasked with developing list of viable textile applications for Tankan's new plant-based polymer, Polyhydroxybutyrate Hydroxybexanoate (PHBH), within agricultural markets.

Actions: Tested material to calculate properties such as water permeability, tear strength, tensile strength and elongation, and UV resistance. Compared PHBH to other polymers to determine likely applications. Conducted tests to determine biodegradation with different yarn thickness and stitch length.

**Results:** Identified polymer's mechanical properties to be most comparable to Polypropylene (PP) and found PHBH could be substituted into PP products: erosion control mesh, crop covers, common plant pots, and other gardening supplies. Presented project findings to senior design groups and company sponsors at end-of-year event.