

2020

IMPACT REPORT

DETROIT **FASHION+TECH**
HACKATHON

DETROIT'S RETAIL + APPAREL INNOVATION CHALLENGE

DF+TH

NOT YOUR AVERAGE HACK

“COVID HAS PUSHED BUSINESSES TO PIVOT AND ADJUST TO THE CHALLENGES, INCLUDING THE APPAREL INDUSTRY. THIS YEAR, WE PIVOTED OUR EVENT TO A FULLY VIRTUAL FORMAT WHILE ADDRESSING REAL CHALLENGES FACING BRANDS. THIS FORMAT ALLOWED US TO OPEN OUR INNOVATION CHALLENGE TO THE WORLD. THIS EVENT IS UNIQUE – NOT EVERY TEAM FINISHES. WE FOCUS ON PUSHING TEAMS OUT OF THEIR COMFORT ZONES TO CREATE AMAZING SOLUTIONS.”

LORI MCCOLL,
FOUNDER DF+TH & WHIM



**ERIC YELSMA,
DETROIT DENIM**



“I’M AMAZED AT HOW MUCH WAS ACCOMPLISHED IN A 36 HOUR TIME FRAME. IT WOULD HAVE TAKEN US A FEW MONTHS TO GET THAT TYPE OF WORK DONE – AND IT WOULDN’T HAVE BEEN AS WELL THOUGHT OUT. THE TEAMS WERE REALLY GOOD AT WHAT THEY DID.”

REAL PROBLEMS. REAL, INNOVATIVE SOLUTIONS.

DF+TH

The 36-hour Detroit Fashion + Tech Hackathon brings together creativity and technology to develop solutions to the problems facing the fashion and retail industries. This event supports the overall foundation of innovation in Detroit.

THE 2020 DETROIT FASHION + TECH HACKATHON (DF+TH) BROUGHT TOGETHER 93 REGISTRANTS FROM 11 COUNTRIES AND 11 STATES TO SOLVE REAL PROBLEMS FACING ESTABLISHED BRANDS IN THE FASHION AND RETAIL INDUSTRIES. The 36-hour event kicked off Friday, Sept. 25, 2020 at 5:30 p.m. EDT and ran until 3:20 p.m. EDT on Sunday, Sept. 27, 2020. The DF+TH was co-hosted by Whim and Pure Michigan Business Connect (PMBC), an initiative of the Michigan Economic Development Corporation (MEDC). For the past three years, the DF+TH has set a number of goals related to diversity, creativity, and community.

The 36-hour competition provided participants with unique mentorship as well. Whim and its mentor partner, Grand Circus, provided over six mentors with skills in computer science, systems engineering, manufacturing, artificial intelligence and fashion. The mentors worked closely with participants throughout the weekend.

With collaboration from mentors, problem statement partners, and sponsors, this year's teams brought new ideas to the table, as the industry adopts new methods of innovation to bridge the gap between consumers and fashion.

WHIM.

PURE MICHIGAN[®]
Business Connect

36 HOURS



INTERNATIONAL
TEAMS WORKING TOGETHER
VIRTUALLY 



CHALLENGED WITH
2 ISSUES FACING
FASHION/RETAIL BRANDS

INNOVATING
REAL SOLUTIONS



THAT SOLVE
INDUSTRY
PROBLEMS



DETROIT DENIM
PROBLEM STATEMENT

Create a solution that would allow the customer to experience the production of their jeans from order to receipt.



DEVIANT DESIGN
PROBLEM STATEMENT

Create a solution that would support the automation of the color recipe based on the type of textile, color & cut. Ideally, this solution should get smarter are more data attributes are added to the solution.

At a glance, the 36-hour Detroit Fashion + Tech Hackathon brings together creativity and technology to develop solutions to the problems facing the fashion and retail industries. The event also provides networking opportunities with industry experts. When looking deeper, the DF+TH is a part of an ethical fashion revolution ignited by the COVID-19 crisis.

This event is an official part of the Detroit Month of Design. 2020 marks the 10th anniversary of the festival which takes place September 1-30. Programmed by Design Core, Detroit Month of Design is a citywide celebration of creativity that gathers designers and the greater community to celebrate Detroit's role as a UNESCO City of Design.

"While industries are still uncovering the full impact of COVID-19, the crisis is providing an opportunity for unique innovation and more sustainable practices in fashion," said Lori McColl, Founder of DF+TH and Whim. "Not everything will be successful; however, this is a good time to test things out and develop a blueprint for moving forward, one of the guiding principles of the DF+TH."

The last few months have seen a historic shift in how the world views technology in the fashion industry. Fashion is culture; it's only right for fashion to seize the moment to review sustainability, ethical sourcing, and its role with regard to diversity. Questions have arisen on protecting fashion's most vulnerable workers after COVID-19. How do we protect smaller brick and mortar brands from extinction?

"Whim hopes after this crisis, we will see a shift in sustainability to include global citizenship," said McColl. "A focus on the way we think of each other

and the responsibility we have to care for one another. We hope the DF+TH will bring awareness, and most importantly real solutions to aide brands in the midst of an economic collapse."

"As the fashion industry continues to develop, it is becoming harder to talk about fashion without also discussing technology," said Cassidy Tucker of Deviate Fashion, a DF+TH 2020 partner. "Technology has completely disrupted a number of industries that we would consider fashion related. For example, the textile manufacturing industry is more efficient, sustainable, and cost-effective than ever. However, it is still incredibly wasteful - a simple pair of jeans can require 1,500 liters of water to produce."

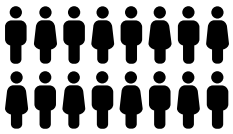




While the DF+TH looks forward, its history demonstrates the event's impact. The DF+TH was created in 2018 as a strategic event to attract investment and create jobs for Detroit. With the goal of diversifying trades and manufacturing, the DF+TH has an opportunity to impact technology and innovation to bring creatives together in a new and sustainable way.

Now, the DF+TH is moving beyond just Detroit.

"Of all segments of manufacturing, apparel has been one of the last to automate," said Brenna Lane of Detroit Denim, a DF+TH 2020 partner. "There are so many opportunities for technology to positively impact every aspect of the apparel industry, from manufacturing to customer experience."

"The DF+TH is a unique platform that has always brought creative minds together in Detroit and demonstrates how their talents and businesses could grow and thrive here in the state," said Tanya Markos-Vanno, Development and Operations Manager, MEDC's Pure Michigan Business Connect. "Now this annual event is moving virtual, providing opportunities for participants across the world to connect, meet mentors, and develop innovative solutions, showcasing how Detroit and Michigan play an important role in the growing apparel, retail, and high-tech fields globally."

DIVERSITY + INCLUSION: HOW 2020 DF+TH MEASURES UP

93 REGISTRANTS 	 35 MALE	87% FREE AGENTS 	AREAS OF EXPERTISE:	
	 53 FEMALE		26% FASHION	
FROM	11 COUNTRIES	11 STATES	5 MENTORS 	
			Fashion Retail Expert AI/Hackathon Expert Front End Developer/ UX/DigitalMarketer	Software Engineer/ Designer Back End Software Engineer





SARA HAN | JUDGE

Co-Founder, MixPose MixPose is a live streaming yoga platform that uses AI pose detection in real time. Sara is a multi-disciplinary software engineer and UX/UI designer with specialization in front end development and skills in 3D web visualizations and 3D modeling. She has over 10 years of experience in software and design with a BFA Graphic Design and a double minor in Computer Science and Web Technologies & Applications. Sara's also an Nvidia AI Innovator. She's won dozens of hackathons, was part of the team that was a grand challenge winner for United Nations Development Programme COVID-19 challenge, participated in the China-US Young Makers 4 years in a row, and has been invited to international hackathons including Vienna, Stockholm and Beijing.

"Innovation and creativity are always put to the challenge when there is limitation. In this hackathon, the limitation was the fashion industry and the challenge statements. Hackathon participants received real industry problem statements about the specific subjects. All of the submissions had their own strengths and unique factors which made it a very difficult hackathon to judge. The organizers, sponsors, mentors and judges were all very impressed by the contestants and their creative solutions."

JONATHAN OLSEN | MENTOR

Front End Developer / UX / Digital Marketer With a Master's Degree in Sport Administration and many Continuing Education Certificates in Web Design, Front End Development and Computer Software Engineering, Jonathan is eager to assist with our DF+TH as a mentor. He has extensive skills as a digital marketer and developer to support dynamic website creation.

"Big thanks to the WHIM team for a great Detroit Fashion + Technology Hackathon event and allowing me to be a mentor this weekend! I love seeing participants putting together solutions to the Detroit Denim Co. and Deviate Designs problems."



CHIOMA ONUKWUIRE | PARTICIPANT, TEAM SUS SUPPLY

Compliance Analyst, Wells Fargo / Designer & Co-Owner, CHIMU During the day, I am a Compliance Analyst, but at night I am a fashion designer that loves to incorporate tech into their designs. My company (CHIMU) recently pivoted and we have been brainstorming more ways on how we could combine fashion and technology. That is when we heard about this amazing Hackathon.

"...Not only did we study and provide solutions to problems and gaps within the fashion industry, but I learned how technology can be used to solve those problems...it was not until this Hackathon that I really understood the lot and how useful it is. I absolutely loved this Hackathon and how they bring awareness to both the fashion and tech side!"

D+TH

THE FINALISTS

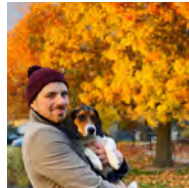


FIRST PLACE

TEAM SEAMLY



I heard about the fashion hackathon through Startup Detroit slack channel. We formed our team the night before the hackathon at the matchmaking session. Most of our team members didn't know each other before and we all come from different backgrounds. We have Data Scientist, Fashion Designer, Business Analyst, Business Buyer and UI/UX Designer. We just clicked with each other and collaborated so well. I'd attribute the success to our strong team. I also want to thank Detroit Denim Co for providing us the challenge. — KAI CUI



AVERY GREEN



TAMMY ONG



JOSHUA ASKER



KAI CUI



RIFAYAT UDDIN

DETROIT DENIM SOLUTION

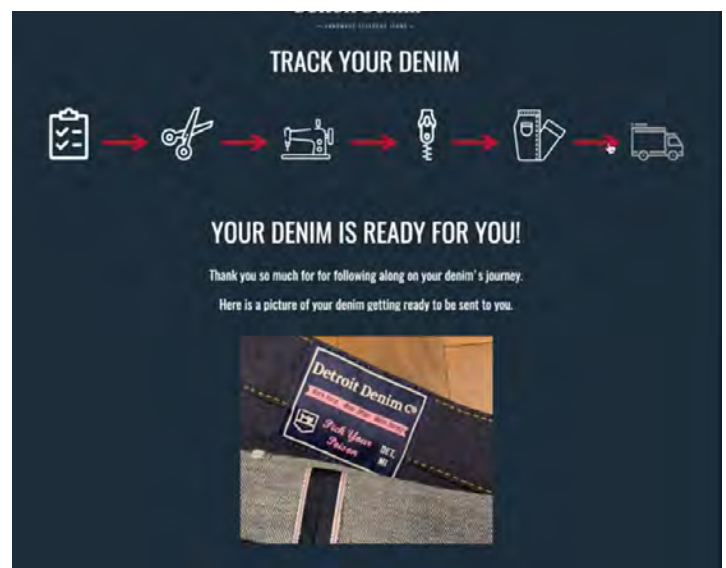
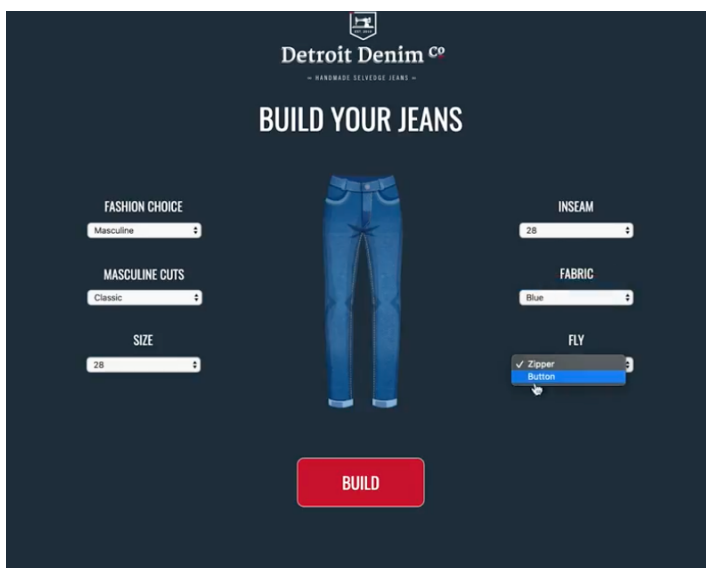
Team Seamly created a new Shopify plug-in which enhanced the customer's real-time experience from order to receipt. Starting with the "Build Your Jeans" tool to the "Track Your Denim" the experienced design was created to engage the core customer audiences.

The solution included the visual design for the experience, as well as the scanning solution to provide data triggers as the jeans move through the manufacturing process at key moments. The data triggers were integrated into the solution to allow for image, text and email notifications to build a customer connection with the process of their jeans being designed and manufactured.

"Strong design for the user experience. Strong pitch. They really tackled the problem statement, did a lot of research and closely aligned with the problem statement. Love the UX UI for the online shopping experience."

— DF+TH Judges

VIEW THE PRESENTATION



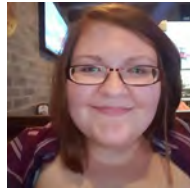
SECOND PLACE

TEAM GENERAL CODERS

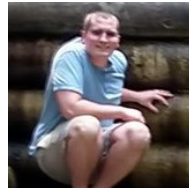


One of the biggest challenges my teammates face is finding problem statements to pursue outside of work. The Detroit Fashion and Technology Hackathon went through great lengths to identify problem statements to solve problems for an entire industry (made to order manufacturers). The DF+TH's efforts coming up with problem statements prior to the event made it easy for us to jump in, develop ideas, and ultimately create a prototype. Removing the barrier of identifying a problem statement allowed us to have a very enjoyable and productive weekend.

— THOMAS NEWMAN



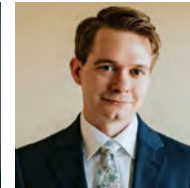
ASHLEY NEWMAN



THOMAS NEWMAN



CHELSEA WYLIE



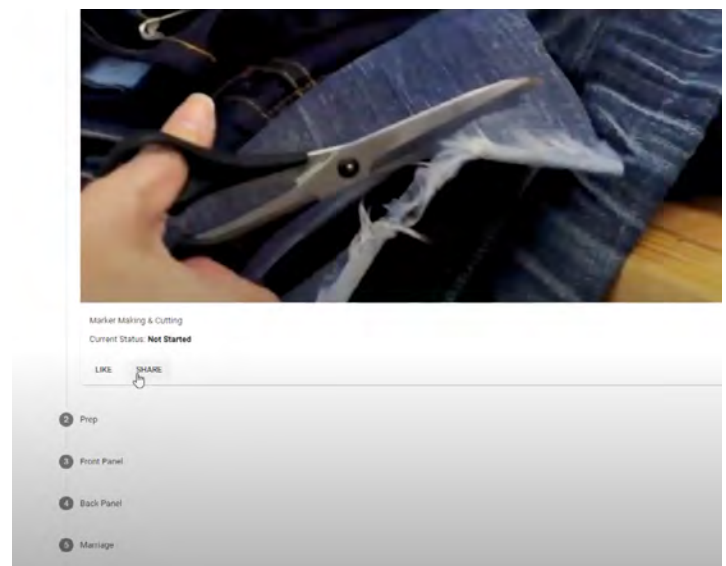
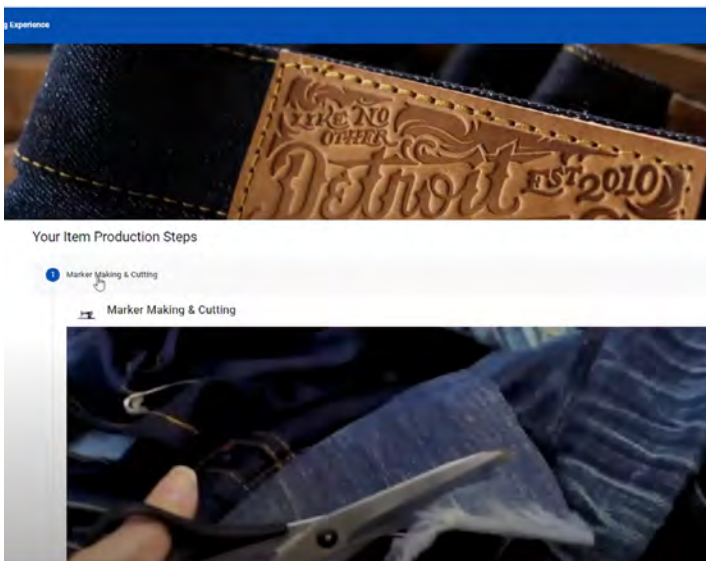
CHRISTOPHER WYLIE

DETROIT DENIM SOLUTION

Team Coders developed a full stack solution that included a front-end interface that showed the movement of a customer's pair of jeans through the manufacturing steps with a fully engineered back-end that integrated the RFID scans at each step of the process. The fully developed back-end, leveraged the product flow, similar to the automotive industry, with the future state design to be integrated into an enterprise & ecommerce platforms for a flexible number of manufacturing steps.

“We were blown away by the amount of functional work completed in the short amount of time. This could be used as an API and be applied and sold to other companies.” – DF+TH Judges

VIEW THE PRESENTATION



THIRD PLACE

TEAM SUS SUPPLY



For me this hackathon is the perfect amalgamation of all my interests and gives me the opportunity to learn and grow in all these domains. Brainstorming with team members from around the world, networking and learning from people, mapping a customer journey and making a potential solution which solves an integral problem is something I enjoyed.

— TANYA SANDEEP GUPTA



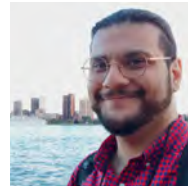
VAIDEHI AMBARDEKAR



CHIOMA ONUKWUIRE



YILIN JIA



ALI AZZAWI



TANYA SANDEEP GUPTA

DETROIT DENIM SOLUTION

Team Sus Supply developed a solution that was designed to be a one-stop shot mobile application that was paired with a physical Detroit Denim swatch kit and an interactive fit guidance and a tape measure. The mobile application was designed to include a video chat feature for a virtual fit appointment and integrated RFID technology for tracking jeans through the production process.

“Great research and flows done for the app. Nice idea to connect people to the brand this way and for customers to feel the quality and color of the material.” – DF+TH Judges

VIEW THE PRESENTATION

Our Proposed Solution

A one-stop solution mobile app interface



A kit containing fabric swatches and a measuring tape



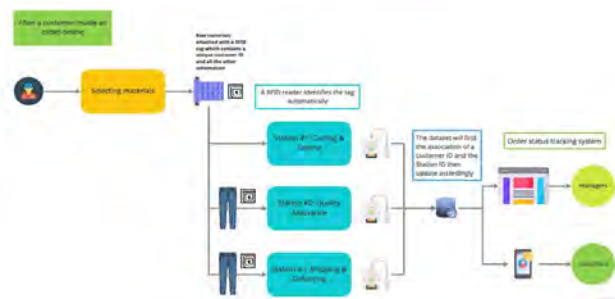
A video call to interact and guide through the process



RFID technology for tracking jeans through production



Backend Workflow



RESILIENCE AWARD

TEAM KOLOR UNLEASHED



This was my best and nicest hackathon I have ever had in my life. I had a great experience interacting with all of the organizers and participants at the event ... The Whim Team ... and Deviate Fashion came up with the interesting challenge and really helped me to finish this challenge. This was one of the well-organised virtual hackathons with Whim's input/help being the cherry on the cake. I can't wait to attend the next one.

— SURUCHI KHAMESRA



SURUCHI KHAMESRA

DEVIATE DESIGN SOLUTION

Team Kolor Unleashed identified the cost associated with redyeing fabrics due to uneven color matching. For small to mid-sized brands who care about the sustainability of their process, many of the expensive equipment is not accessible. As a Team of One, Suruchi proposed a solution to optimize the textile dye recipes leveraging an artificial neural network on a machine learning platform that more closely predicts the dye composition to match the desired color.

“We were very impressed by her creative solution to the problem statement derived from her unique background in chemistry and her deep-dive research into AI/Machine Learning. We really liked how she thought out the process and the steps in order to make this a real solution.” – DF+TH Judges

VIEW THE PRESENTATION

Technology & Architecture Overview

Creating a database of dyes using spectrophotometer

Artificial neural network for prediction of color

*An artificial neural network model was trained with 300 pairs of known input vectors, i.e. dye concentrations, and output vectors, i.e. colour parameters, using a backpropagation algorithm. The artificial neural network topology consists of three neurons in the input layer to represent the concentration of dyes, three neurons in the output layer to represent the tristimulus values X, Y and Z, and five neurons in the hidden layer with a log-sigmoid transfer function. The artificial neural network results showed a good level of colour prediction during the training and testing phase. The results also indicate that the artificial neural network has the potential to give better predictive performance.” – Coloration Technology (Wiley Publication).

Image 1: <https://www.expertsmind.com/questions/absorbance-spectrophotometer-30118001.aspx>
 Image 2: Artificial neural networks for colour prediction in leather dyeing on the basis of a tristimulus system Maletty Javanar, Chandra Babu Narasimhan Kikkani, Meha Kondamudi Murdithur

Competitive Landscape

Data Color: Datacolor, through its subsidiaries, provides solutions for color measurement, management, communication, and calibration.

Private Players: Established and have good data libraries

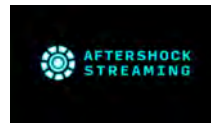
source: Craft.co

DF+TH 2020

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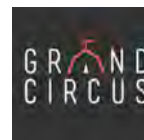
BRAND PARTNERS



SHINOLA DETROIT



OUTREACH PARTNERS



JUDGES

Dan Kinney
Senior Advisor, Strategy, Tome

Sarah Han
Co-Founder at MixPose

MENTORS

Lori McColl
Founder, DF+TH & Whim-Detroit

Jonathan Olson
Front-End Developer & UX Designer

Brandon Klotz
Software engineer & designer

Adam DePollo
Back-end software engineer

Peter Ma
AI Expert

Leanne Roddy
Fashion industry expert

Cassidy Tucker
Co-Founder, Deviate Fashion

Kelsey Tucker
Co-Founder, Deviate Fashion

Brenna Lane
Production & Operations, Co-Owner, Detroit Denim

Eric Yelsma
Co-Owner, Detroit Denim

TANYA
MARKOS-VANNO,
PURE MICHIGAN



It was exciting for us to be a part of bringing these creative minds together in Detroit albeit, virtually, to demonstrate their talent and solve tech problems for the industry!

FARIS ALAMI,
ISM, INC



Taking these ideas from concept, to workable creation, to a viable company seemed like a very natural next step and something we wanted to be a part of. It's incredible to see a diverse cross-section of people ... participate in the creation of a solution to a problem statement that effectively and ingeniously solves very real problems for local brands.

KIANA WENZELL,
DETROIT
DESIGN CORE



The Detroit Fashion + Tech Hackathon was a welcome addition to the 10th Annual Detroit Month of Design as the event highlighted the importance of technology, innovation and collaboration. We look forward to future Whim Detroit events.

The logo for DFTH, consisting of the letters 'D', 'F', 'T', and 'H' in a bold, white, sans-serif font. A small blue plus sign is positioned between the 'F' and 'T'. The logo is set against a black rectangular background.

DFTH

WHAT'S NEXT?

Interested in being a brand partner?

Interested in being a sponsor?

Interested in being a mentor?