

Digital Fashion Hackathon

Nov 05th-06th, 2016

disruptfashion.com

Background Information

Big Data, IOT, 2D/3D, Social Curation, Smart Tags, Image Recognition, AR/VR, Retail, Shopping, Fashion/Tech

Background

1. IoT / Connected Objects / Retail Tech
2. Big Data, Computer Vision, Machine Learning, AI
3. Customization, Sizing, Body Scanning
4. Fashion & Social Curation
5. VR/AR / Virtual Try-on / Configurators
6. Platforms

For more resources visit the **Database** at: thefashionrobot.com

IOT / Connected Objects / Retail Tech

The Internet of Things (IoT) refers to the ever-growing network of physical objects that feature an IP address for internet connectivity, and the communication that occurs between these objects and other Internet-enabled devices and systems.

The Internet of Things revolves around increased machine-to-machine communication; it's built on cloud computing and networks of data-gathering sensors; it's mobile, virtual, and instantaneous connection; and they say it's going to make everything in our lives from streetlights to seaports "smart."

IOT / Connected Objects / Retail Tech

Smart mirrors

- Memomi
- Perseus

Connected displays

- Perch Interactive
- Float Hybrid

Smart fitting rooms

- Myrio

Beacons

- Shop Kick

Big Data

Big data is a term for data sets that are so large or complex that traditional data processing applications are inadequate to deal with them. Challenges include analysis, capture, data curation, search, sharing, storage, transfer, visualization, querying, updating and information privacy. Big data is an evolving term that describes any voluminous amount of structured, semistructured and unstructured data that has the potential to be mined for information.

Big data is being generated by everything around us at all times. Every digital process and social media exchange produces it. Systems, sensors and mobile devices transmit it. Big data is arriving from multiple sources at an alarming velocity, volume and variety.

Big Data

Visual search

- Vue.ai
- Eye Style
- Thread Genius

Social shopping

- Fit Bay (Shared Closet)

Fit matching

- Fit analytics

Computer Vision, Machine Learning, AI

The goal of computer vision is to extract meaningful information from images/videos. Such as whether a certain object is present or not in a particular scene.

The goal of machine learning is to optimize differentiable parameters so that a certain loss/cost function is minimized.

Artificial intelligence (AI) is intelligence exhibited by machines. In computer science, an ideal "intelligent" machine is a flexible rational agent that perceives its environment and takes actions that maximize its chance of success at some goal

Sizing, Body Scanning, Customization

THE FIT PROBLEM

1. Each human has a unique morphology
2. Sizes lack consistency across brands
3. The average woman is a size 14, but regular sizes stop at 12 and plus size starts at 16
4. Body type is largely unaccounted for in sizing systems

SOLUTIONS

5. Fit Analytics (View live at the North Face, click Fit Finder)

Sizing, Body Scanning, Customization

THE HUMAN BODY IN THE COMPUTER

1. Methods of Body Scanning
2. Avatars, Parametric Rigging
3. User Experiences

AVATARS

1. File
2. Avametric
3. Body Labs
4. Nettelo

BODY SCANNING SOLUTIONS

- TC2
- Size Stream
- Naked
- Volumental
- mPort
- Me-ality

Sizing, Body Scanning, Customization

CUSTOMIZATION

1. Fit Matching
2. Product Configurators for Co-Creation / Customization
3. Virtual Fitting Room
4. Simulations and Visualizations: Patternmaking

EXISTING BRANDS

- Trumaker
- Ledbury
- Alton Lane
- Acustom

For more information about these topics, please visit:

thefashionrobot.com

Fashion & Social Curation

1. Personalized online equivalent of window shopping
2. Collect products from favorite online stores
3. Edited collections of products and trending wares with social media functionality
4. Shoppers can subscribe to the weekly digest for inspiring trends and products

EXISTING BRANDS:

- Zappos
- ShopStyle
- ShoeDazzle

VR/AR / Virtual Try-on / Configurators

Virtual reality (VR) is an artificial, computer-generated simulation or recreation of a real life environment or situation. It immerses the user by making them feel like they are experiencing the simulated reality firsthand, primarily by stimulating their vision and hearing.

Augmented reality (AR) is a technology that layers computer-generated enhancements atop an existing reality in order to make it more meaningful through the ability to interact with it. AR is developed into apps and used on mobile devices to blend digital components into the real world in such a way that they enhance one another, but can also be told apart easily.

VR/AR / Virtual Try-on / Configurators

Virtual Try-on

- File
- Avametric

Avatars

- Body Labs

Configurators

- 3Dimerce
- Bespokable
- Fluid

VR/AR

- Obsess
- Project Tango
- HTC Vive
- Google DayDream
- Microsoft Hololens

Platforms

A platform is a group of technologies that are used as a base upon which other applications, processes or technologies are developed. In personal computing, a platform is the basic hardware (computer) and software (operating system) on which software applications can be run.

A computer platform is any hardware or software used to host an application or service, or any technology on which other technologies are built. A platform is merely a structure made up of “planks,” or integrated features.

Evaluation Criteria

Projects will be evaluated on a 100 point system based on the following categories:

- **Technical Difficulty** (20 pts)
- **Usefulness/Practicality** (20 pts)
- **Business Potential** (20 pts)
- **Innovation and Creativity** (20 pts)
- **User Experience, Simplicity and Design** (20 pts)