**SHARDA UNIVERSITY INVENTION DISCLOSURE FORM CONFIDENTIAL**

**Please fill in the details with complete information.**

**IMPORTANT**

**Please note that patent is always about a solution to an existing technical/industrial problem. As such, draft patent document (IDF) should be crafted in a manner so as to distinctly highlight the existing technical problem, the technical advancement proposed by the inventor(s), and the manner in which the proposed advancement solves the existing technical problem.**

# Particulars of Inventors

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S No** | **Name (Full)** | **Department/**  **School** | **Designation** | **Mobile No.** | **Email** | **Official Address** |
|  | PHILIP BATSTA | SHARDA SCHOOL OF ENGINEERING AND TECHNOLOGY |  | 9205543264 | 2023847127.pphilip@ug.sharda.ac.in | 1611 OAK TOWER  PARAMOUNT, GREATER NOIDA, UP INDIA |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

* **Provide a brief title of the invention**

AUTHENTIC SNEAKERS

# Indicate specific field of Invention

The specific field of invention for an authentic sneakers website could be categorized under **e-commerce technology**, **authentication systems**, or **Machine Learning-based verification**. It might also touch on areas like **image recognition technology** (for identifying counterfeit products), **supply chain transparency**, or **user experience design** for online retail platforms.

# Indicate prior art and shortcomings of prior art, which probably prompted you to come up with your technical advancement (invention). You may indicate already published patents (prior art) and their shortcomings one by one.

# Here’s an overview of prior art and their shortcomings in the field of sneaker authentication systems:

# Cryptographic Digital Assets for Footwear (US10505726B1):

# Description: This patent involves using blockchain technology to create cryptographic digital assets for footwear, ensuring authenticity and ownership.

# Shortcomings: While blockchain provides a secure method for tracking ownership, it requires significant computational resources and may not be user-friendly for non-tech-savvy consumers. Additionally, it doesn't address physical inspection or counterfeit detection.

# Entrupy's Legit Check Technology:

# Description: Entrupy uses AI and machine learning to authenticate sneakers by analyzing images of specific features like size tags, sole patterns, and materials.

# Shortcomings: The system is limited to certain brands (e.g., Nike and Adidas) and may struggle with new counterfeit techniques or models not in its database. It also relies on human input to expand its algorithm's capabilities.

# StockX Authentication Process:

# Description: StockX employs a multi-step verification process involving human experts and advanced technology to authenticate sneakers.

# Shortcomings: The process is time-consuming and labor-intensive, which can lead to delays. It also heavily depends on human expertise, which introduces the possibility of errors or inconsistencies.

# CheckCheck AI-Enhanced Authentication:

# Description: CheckCheck uses AI to authenticate sneakers based on data-driven analysis.

# Shortcomings: The reliance on sensory cues like scent and subjective opinions can lead to inconsistencies. Additionally, variations in manufacturing processes may affect the accuracy of the AI model.

# These limitations likely inspired the development of more advanced, efficient, and user-friendly authentication systems. If you’d like, I can help refine your invention’s unique features to address these gaps!

# Please provide an abstract or summary of the invention particularly highlighting your contribution (technical advancement)

**Abstract**: This invention introduces a cutting-edge e-commerce platform dedicated to authentic sneakers, leveraging advanced 3D display technology to revolutionize the online shopping experience. By integrating high-fidelity 3D models of sneakers, users can interactively view and explore products from every angle, simulating an in-person inspection. The platform further incorporates proprietary algorithms to authenticate sneaker designs and materials, ensuring only genuine products are listed. A key technical advancement of this invention lies in its seamless combination of 3D visualization with real-time product authentication, offering unparalleled transparency and trust to users. This innovation redefines the standards for virtual retail, providing an immersive and secure environment for sneaker enthusiasts.

# Disclose working of invention along with drawing, schematics and flow diagrams with explanation

# To effectively describe the working of your invention—a website for authentic sneakers with 3D display integration—it’s crucial to break the explanation into functional components. While I can’t generate detailed drawings or schematics directly, I can outline the workings along with the system flow.

# Working of the Invention

# Sneaker 3D Display Technology:

# Each sneaker is scanned using photogrammetry or 3D laser scanning techniques to produce highly detailed 3D models.

# Models are optimized for web display without compromising on details, ensuring smooth loading and interactions across devices.

# Users can rotate, zoom, and explore the product, simulating a real-world inspection experience.

# Authentication Algorithm:

# Machine learning models are deployed to analyze sneaker authenticity based on design patterns, material quality, and seller history.

# The algorithm performs real-time checks on uploaded sneaker images or metadata to prevent counterfeit products.

# Integration and User Experience:

# The website uses WebGL technology to integrate interactive 3D models within the user interface.

# The front-end framework communicates with back-end systems to ensure a seamless experience—allowing customers to browse, authenticate, and purchase.

# Workflow:

# Input Phase: Sneaker details (images, specifications) and authentication data are entered into the system by vendors.

# Processing Phase: 3D rendering of sneakers is combined with authentication verification.

# Output Phase: A visually engaging and verified product listing is displayed to customers.

# Flow Diagram Explanation

# Here’s a simplified flow structure (which can be visualized with blocks in a diagram tool):

# Step 1: Vendor uploads sneaker details → Model scanned/created in 3D → Data is stored in a cloud database.

# Step 2: The authentication system processes the data → Validates the product for genuineness.

# Step 3: Front-end delivers interactive 3D models → Users interact, verify details, and proceed to purchase.

# Indicate general Utility/applications/advantages of the invention

# Your invention—the authentic sneakers website with 3D display technology—has wide-ranging utility, applications, and advantages that set it apart in the e-commerce space. Here's an overview:

# Utility

# Enhanced Shopping Experience: Provides users with a detailed and interactive view of sneakers, akin to inspecting products in physical stores.

# Authentication Assurance: Acts as a trusted platform for customers seeking genuine sneakers, reducing the risk of counterfeit purchases.

# Vendor Credibility: Offers sellers a transparent and reliable platform to showcase their authentic products, fostering trust among buyers.

# Applications

# E-Commerce: Revolutionizes the sneaker retail industry by combining immersive 3D visuals with robust authentication mechanisms.

# Collector Communities: Serves as a trusted marketplace for sneaker enthusiasts and collectors to verify and buy rare models.

# Fashion and Lifestyle Sector: Positions itself as a trendsetting platform in the fashion-tech domain, attracting designers and brands.

# Educational Tool: Can be used to demonstrate sneaker design and manufacturing processes in educational workshops or exhibitions.

# Advantages

# Immersive Product Display: The 3D visualization enables customers to see sneakers in stunning detail, which traditional 2D images cannot offer.

# Reduced Return Rates: Better product understanding minimizes customer dissatisfaction and returns.

# Authentication Reliability: Real-time counterfeit detection ensures authenticity and builds consumer trust.

# Global Reach: As a digital platform, it connects sneaker enthusiasts and vendors worldwide, breaking geographical barriers.

* **Has the invention been built (prototype) or tested or implemented? If so, please provide the particulars**

**It seems you’re interested in the current development status of the invention! While I don't have firsthand knowledge of whether a prototype has been built or implemented for your specific invention (as I rely on the information you provide), here’s what typically happens during these phases:**

**Prototype Development:**

* **If your invention has a working prototype, it likely includes key features such as interactive 3D display models for sneakers, authentication algorithms integrated with the database, and a user-friendly web interface for testing.**
* **During this stage, iterative testing is conducted to ensure smooth rendering of 3D models, accurate authentication, and a seamless browsing experience.**

**Testing Phase:**

* **Functional tests are run to verify the 3D display's usability and responsiveness on various devices and browsers.**
* **The authentication system undergoes trials with known counterfeit products to assess its accuracy and reliability.**
* **Feedback from pilot users helps refine the overall user experience.**

**Implementation:**

* **If implemented, the website would be live with real sneaker listings, offering immersive interaction with 3D models and authentication verification.**

**If you’ve already developed or tested certain aspects, feel free to share specifics (e.g., technical challenges, user feedback), and I’d be happy to help refine or expand upon them! Or let me know if you'd like guidance on next steps for building a prototype or conducting usability testing.**

**Signature**

**Name**

**(Dean of Concerned School)**

**Date**