WE DIGITIZED TWIGITAL'S VISION OF PHOTOGRAMMETRY

Objective

Create an iOS mobile application that leverages the capabilities of the device camera to create fully realized 3D versions of objects.

Solution

Seisan developed a complete branding identity along with a first of it's kind, user friendly mobile application to allow users to scan any physical object via device camera and mint them into NFTs.

LEVERAGED TECHNOLOGIES

- Blockchain
- Minting NFTs on the Hedera Network (Testnet & Mainnet)
- 3D Asset Models
- Swift 5
- IPFS
- AWS (S3, EC2, RDS, Cloudfront)

PLATFORM INTEGRATION
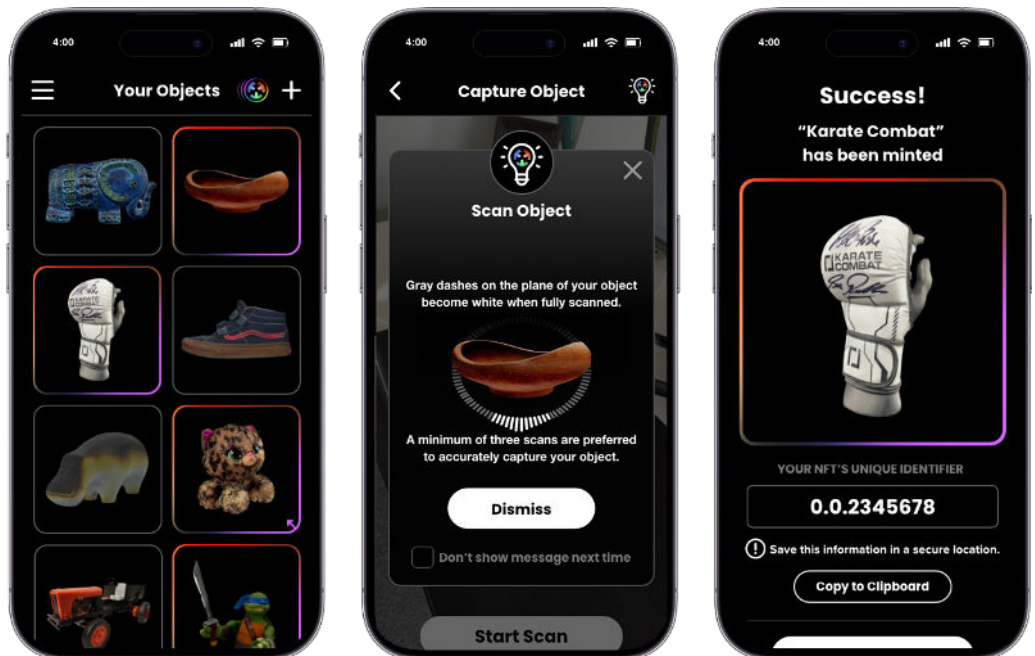
- Hedera Javascript SDK
- Hedera Mirror node API

CORE CAPABILITIES

- Web3 Tech Exploration
- Emerging Technology
- UX/UI
- Logo Development & Branding Guidelines
- Agile Process

EXTENSION OPPORTUNITIES

- NFT Store to Showcase, Buy & Sell Twigitals
- Credit System to Mint, Buy & Sell Twigitals on the App Store

Seisan created a mobile application for Twigital that allows users to capture a "digital twin" of any physical object through photogrammetry to share in augmented reality or as an NFT.

Twigital™ (twin-digital) is a mobile application that creates tokenized digital twins. These assets come in the form of 3D objects and will become the building blocks utilized to populate spatial computing environments.

Seisan worked with Twigital to develop this core utility, an integral piece of Web3 enabled infrastructure that will help fuel the tokenized economy by minting any object into an NFT that can be live on the blockchain.

SEISAN'S APPROACH / MOBILE APP DEVELOPMENT

PROJECT OVERVIEW

Twigital's mobile application leverages photogrammetry to create 3D models of real-world objects through the use of a device's camera. These models can be utilized and shared in augmented reality, NFTs, and other Web3 technologies. Seisan's development has led Twigital to become the first to offer this type of file creation, positioning itself as a leader in the tokenized economy.

3D object creation has been simplified on the mobile app, offering user's step by step photo instructions or the ability to choose camera roll photos. Account creation will have a user create their own Twigital account and connect to a Hedera wallet. This allows for their assets to be easily managed and provide them ease of access when wanting to value, trade, and view unique NFT identifier details.

With access to a Hedera account, users are given the ability to mint their own NFTs based on their uploaded assets.

UX/UI, BRANDING & PROTOTYPES

Seisan's design team worked closely with key decision makers at Twigital to develop a unique animated logo concept. Through iterative process, Seisan delivered a series of interactive prototypes to showcase the app's capabilities before a single line of code was written.

Along with the brand identity, mobile app UX/UI and NFT Certificates, Seisan developed a full set of branding guidelines for ongoing internal and external usage.

TECHNOLOGY DETAILS

Seisan developed Twigital's iOS mobile app with Swift 5, ensuring it meets the latest iOS standards and submission criteria and provides maximum performance.

The app relies on the user's device camera to capture photos from multiple angles of an object so that it can be processed into a 3D object using photogrammetry.

Blockchain technology allows for user's to mint their NFTs on the Hedera Network so they can be traded or shared. Each minted NFT is

provided with its own unique identifier allowing for detailed lookup and archiving.

Assets that are created are content addressed using IPFS, allowing for unique identification of each that can link to minted NFTs.

RESULTS

Seisan's user-friendly mobile interface and integration with iOS photogrammetry culminated in a unique and seamless experience for the Twigital user base.

Partnerships with Seisan, Twigital and Hedera delivered a first of it's kind app to the App Store that bridged the gap between photogrammetry and 3D object capture to the block chain and NFTs.

Seisan has continued its partnership with Twigital and continues to enhance the application and their marketing materials in this evergrowing photogrammetry landscape. The Twigital app has been extremely well received through their marketing and trade show efforts, including a partnership with the Karate Combat league.
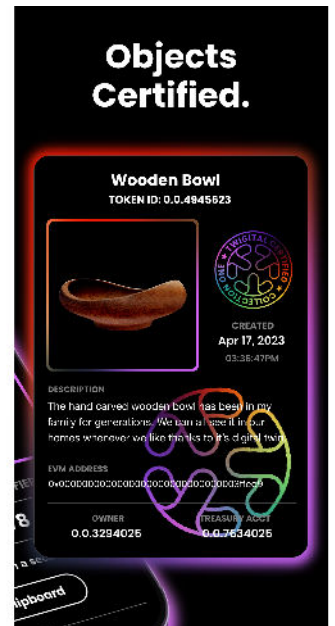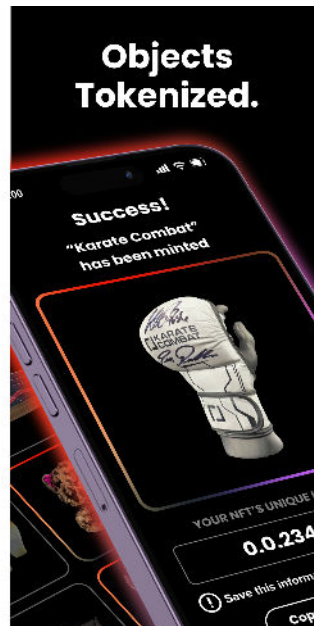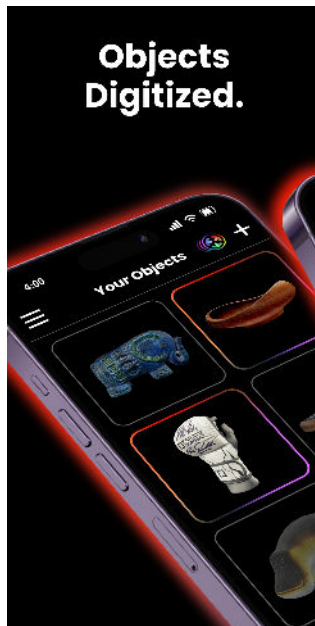

BRANDING & IDENTITY

Seisan was tasked with defining the visual personality for Twigital. Through the iterative process, we finalized an animated logo that encapsulates the process of photogrammetry.

Three abstract representations of a "T" combine within a perfect circle to create the essence of something being digitized within.

When animated, the overlay elements move in a clockwise circular motion and the gradient stays static, which enhances this feeling of being digitized and/or tokenized into a Twigital twin asset.

FULL SERVICE PARTNERSHIP

Seisan played a key role in every aspect of the Twigital project. From mobile app design and development, backend integrations and blockchain technology to App Store submission and custom screenshots (above) to enhance marketing efforts.