



HealthChain

Blockchain-based medical record wallet to facilitate patient care and equalize information sharing between patients and physicians



Welcome to
Dr. Clark's Office

Log In

Here's What You Are Sharing

- Your health history
- Your allergies
- Your medications

Okay

The Problem

According to the Office of the National Coordinator for Health IT, in 2017 more than 83% of doctors use Electronic Medical Record systems. One of the biggest challenges that these digital files face is providing efficient access with security measures that protect patient data while complying with HIPAA guidelines. Furthermore, medical professionals have disproportionate access to patient records vis a vis the patients themselves.

...What is needed is an approach that ensures that only authorized users can see private medical information as needed. That's where blockchain and face recognition technology can make a big difference.



**Medical records
today are hosted on
under-secured
legacy systems
controlled by
healthcare providers.**

Patients have incomplete access to their own medical histories, which are stored and secured by medical offices.

What if patients had ownership of their records, giving them increased freedom of choice with regard to healthcare?

Our users

We're connecting **patients** and **physicians** by providing them with the same data, leveling the playing field and securely encrypting medical records that patients can carry with them throughout their lifetimes.



Patients

- Medical records are stored with their physician; they must request that their files be sent to any new healthcare provider. Files are stored electronically or on paper systems.
- Customer experience varies across medical providers; wealthier patients have more access to their own data
- Patients are increasingly demanding personalized care and seeking out health data through alternate channels like 23andMe and at-home allergy testing
- Volatile healthcare market and regulation means increased uncertainty for patient information



Julia
Patient

Has moved twice in the past five years; currently has a PCP and two specialist providers. Does not currently have employer-provided health insurance. Takes prescription medication for a chronic condition.

Medical Professionals

Experience wait times in receiving records when they take on new patients

Shoulder responsibility for protecting patient data from security breaches

Increasing pressure from patients to have access to their data

Aging population; providing more long term care, routine visits and chronic illness



Dr. Clark
Primary Care Provider

Dr. Medina works in a regional practice in a college town, with a mix of retirees, university faculty, and students. 45% of her patient population is international and she makes referrals during 30% of routine wellness visits. She has admitting privileges at the local hospital.

Value Proposition



Patients



- **Security:** Information is encrypted and private.
- **Patient Empowerment:** decide what information to share.
- **Autonomy:** Patient owns his information.
- **Convenience:** seamless payment upon conclusion of visit

Physician



- **Time Saving:** doctors will have access to specific and complete information.
- **Information Accessibility:** Access to complete historic and current data.
- **Customer service:** provide a more accurate diagnosis.



User Journey with HealthChain

Patient

1) Signs up for Health History	2) Patient arrives at doctor's office	3) Approaches kiosk, photo is taken and verified	4) Facial recognition software unlocks records	5) Reviews personal data	6) APPOINTMENT: patient, physician both see same data	7) Checks out upon leaving office, completes payment via wallet
--------------------------------	---------------------------------------	--	--	--------------------------	---	---

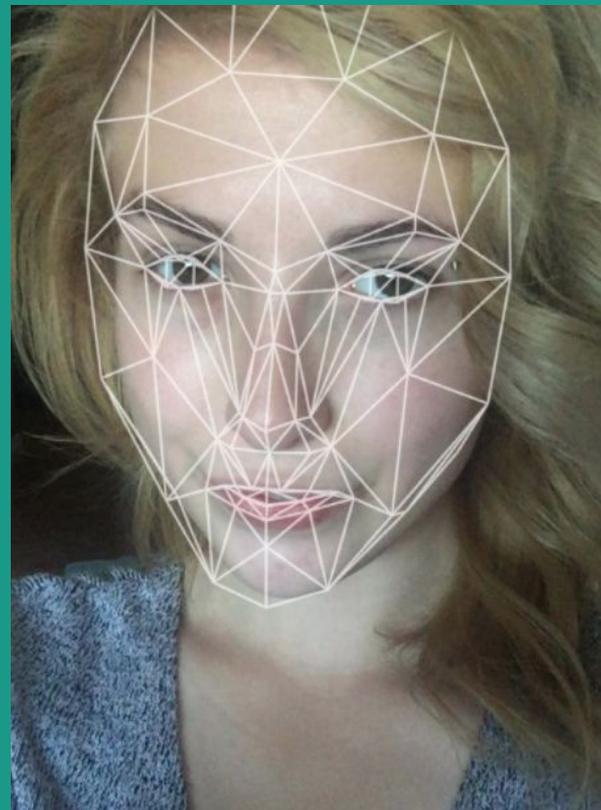
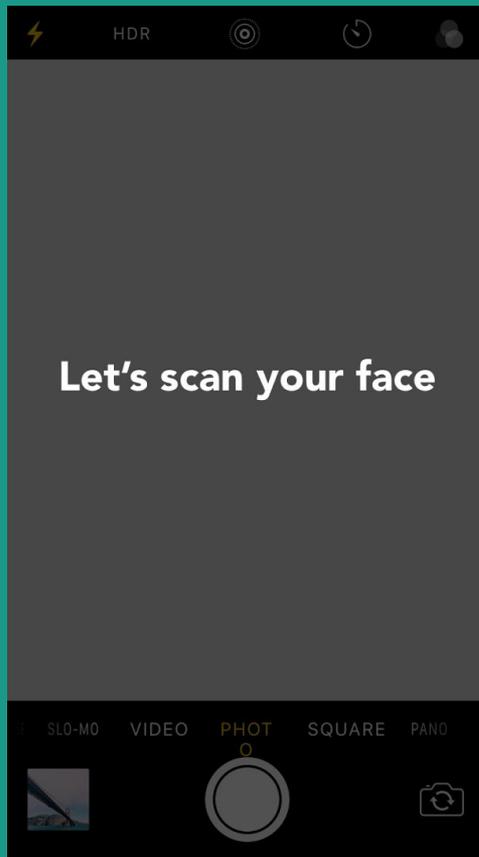
Physician

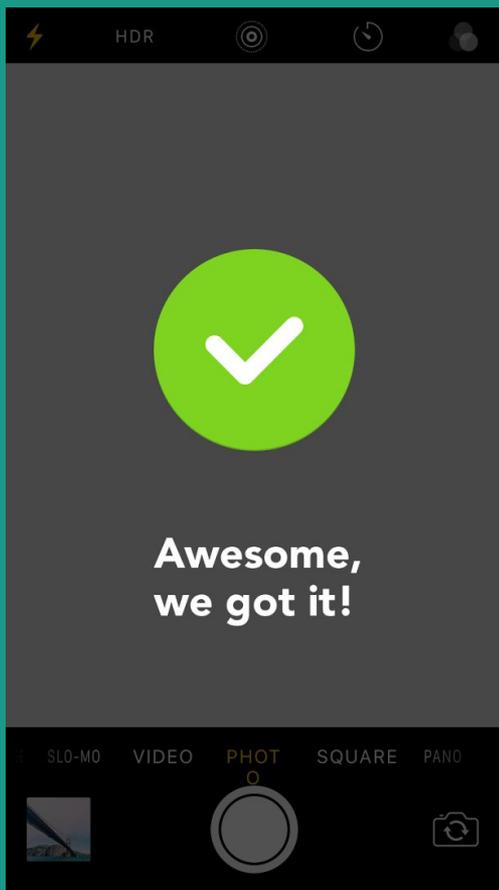
1) Purchases Health History, installs kiosk	2) Reviews daily schedule	3) Alerted to patient arrival and unsealed records	4) Reviews unsealed records	5) APPOINTMENT: patient, physician both see same data	6) Post-appointment, adds patient notes to health history
---	---------------------------	--	-----------------------------	---	---



**Welcome to
Dr. Clark's Office**

Log In





Thank You!



**Dr. Clark now has
your info and will
see you in 10
minutes.**

Here's What You Are Sharing

-  Your health history
-  Your allergies
-  Your medications

Okay

Patient Flow

Type	: issue
ID	61eb1583a2cb87176e1653e1d535b3f14fe1a1030b9bdc67a2648ed6e18c7492
Amount	100
Asset ID	17e745dc5b3f466c527beef8d50863caacd2ae34568756311165a1f68e87caa9
Asset Alias	Joe_galafanakis
Asset Tags	<pre>{ "age": "112211", "name": "Joe Galafanakis", "height": "70", "weight": "220", "payment": { "cvv": "1245", "expiry": "1121", "number": "1342134432309485" }, "allergies": ["amoxicillin", "penicillin"], "insurance": { "number": "HBA1225345234", "provider": "bluecross" }, "conditions": ["fibromyalgia"] }</pre>

Facial Scan
Identifies Patient



Patient's Private
Key and Data is
sent to Physician



Physician
Reads and
Modifies Data



Data is encrypted
by patient with
new key pair and
committed to the
network



We Used:

InVision/Sketch

Sequence - Blockchain Prototyping

Distributed Patient Data



- Parallel 'opt-in' blockchain with anonymized patient data
- Large Training set for Machine Learning Analysis of

Thank you!



END OF DECK

