

PILLSAFE



PillSafe: Transforming Pill Recognition Using Machine Learning

PillSafe by Precise

Precise is proud to present a patent-pending, innovative, mobile solution that leverages Machine Learning, Big Data, Cloud, and Mobile technologies to promote public awareness of the potential side effects and adverse events of pharmaceuticals.

Solution and Features

Correctly identifying a pill based on its physical appearance is crucial for a patient to address medication safety concerns. Color, shape, and imprint uniquely identify a pill, including its name, dosage, and black box warning. Using Google AutoML Vision technology, Precise developed an advanced Machine Learning solution to recognize a pill from pictures taken on a mobile phone. This led us to develop PillSafe, a mobile app that uses the pill recognition technology in conjunction with our Big Data Analytics solution on drug open data, and advanced Cloud and Mobile technologies to promote adverse event awareness for patients. The goal of PillSafe is to improve medication safety by streamlining the factors that contribute to public health, wellness, and awareness. Key features include:

- Drug Interaction Alert: Flags a possible adverse effect of a new drug if taken in combination with another drug already being used
- **Dosage Alert:** Checks the dosage best practice and prevents human error or mistakes by the prescriber
- Adverse Event Reporting: Enables the use of Machine Learning algorithms to find any adverse event (AE) patterns from user-reported symptoms or events. PillSafe sends AE patterns to FDA using standard Adverse Event Submission methods



- Adverse Event Alert: Initiates AE alerts by analyzing user inputs and prevents escalation of incidents by enabling immediate rescue response
- Drug Recall Alert: Alerts all signed-in prescription drug users and medical practitioners to stop newly restricted or banned drugs from use or distribution
- Drug Imaging: Uses high-definition graphics to display the standard image of any prescription drug
- Clinical Trial Information: Harnesses Big Data analytics to provide clinical trial information across the board, in an effort to reduce medical turn-around time and costs
- Leveraging Social Media: Public users will be able to use in-app features to interact with PillSafe communities via social media, in order to share personal experiences with other users of the same prescription drug
- Opioid Crisis: Identifies opioids and offers patients preventative protection through interactive advice on best practices when taking opioid-based medications, and deduces possible addiction in patients to assist in identification and treatment

How We Help Our Customers

Precise applies the latest technologies and innovation to help improve medical and pharmacological care, as well as safety of the general public.

PillSafe's features help solve pain points that patients, medical practitioners, and regulatory bodies have experienced in pharmacological medicine. We want to empower prescription drug users to better understand the impact of their actions on their health.

It is the desire of most every person to access the best medical attention possible. Through PillSafe's analysis of cause and effect in pharmaceutical care, we aim to provide people with information that will best serve them.

Our Emerging Technology & Solutioning Expertise

Precise is a forward-thinking, pioneering business that incorporates Artificial Intelligence, Cloud, Big Data, Blockchain, Mobile, and other technologies in our service offerings. The US Government has funded a lot of research into technologies that could benefit its citizens. We blend these technologies into our solutions, and we strive to lead the way in showing other businesses how they can leverage these technologies for other use cases to provide better products and services in all sectors.

About Precise Software Solutions

Precise Software Solutions, Inc. (Precise) is a robust and fast-growing SBA 8(a) certified small business focusing on strategy and IT consulting services to public sector customers. We are proud of our strong reputation for overcoming obstacles and delivering advanced, quality work with measurable results. For additional information, please visit us at www.precise-soft.com.

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