

Medic Vision AI

by KALAHARI LTD



The Team

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AUDIENCE

- TPG Capital
- Ark Invest
- Envision
- Seeing AI

SUPPORT

- Financial
- Regulatory Compliance
- Glasses Integration
- Device Integration

, , We assist people who need help in taking the **correct medication by developing a software, which correctly **identifies** pills.**

Diversity of pills

- Similarity of medication
- Doses and number of medication
- Missing packaging and/or name of medication



Uncertainties and
Health Risks



Adverse Drug Events

- Medication Errors
- Adverse Drug Reactions
- Hospitalization



Target Market

18+ YEARS OF AGE AND RESIDE IN GERMANY

Medical Support

- Senior Care & Assisted Living
- Care Center
- Pharmacist / Nurse
- Medical Student/ Intern

Personal Healthcare

- Dementia
- Old people
- Visual Impairment
- Learning Difficulties

Our Customer

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Competitors

Manual Input Medication Features

Drugs.com
Medication
Guide



Pill Identifier and
Drug Search

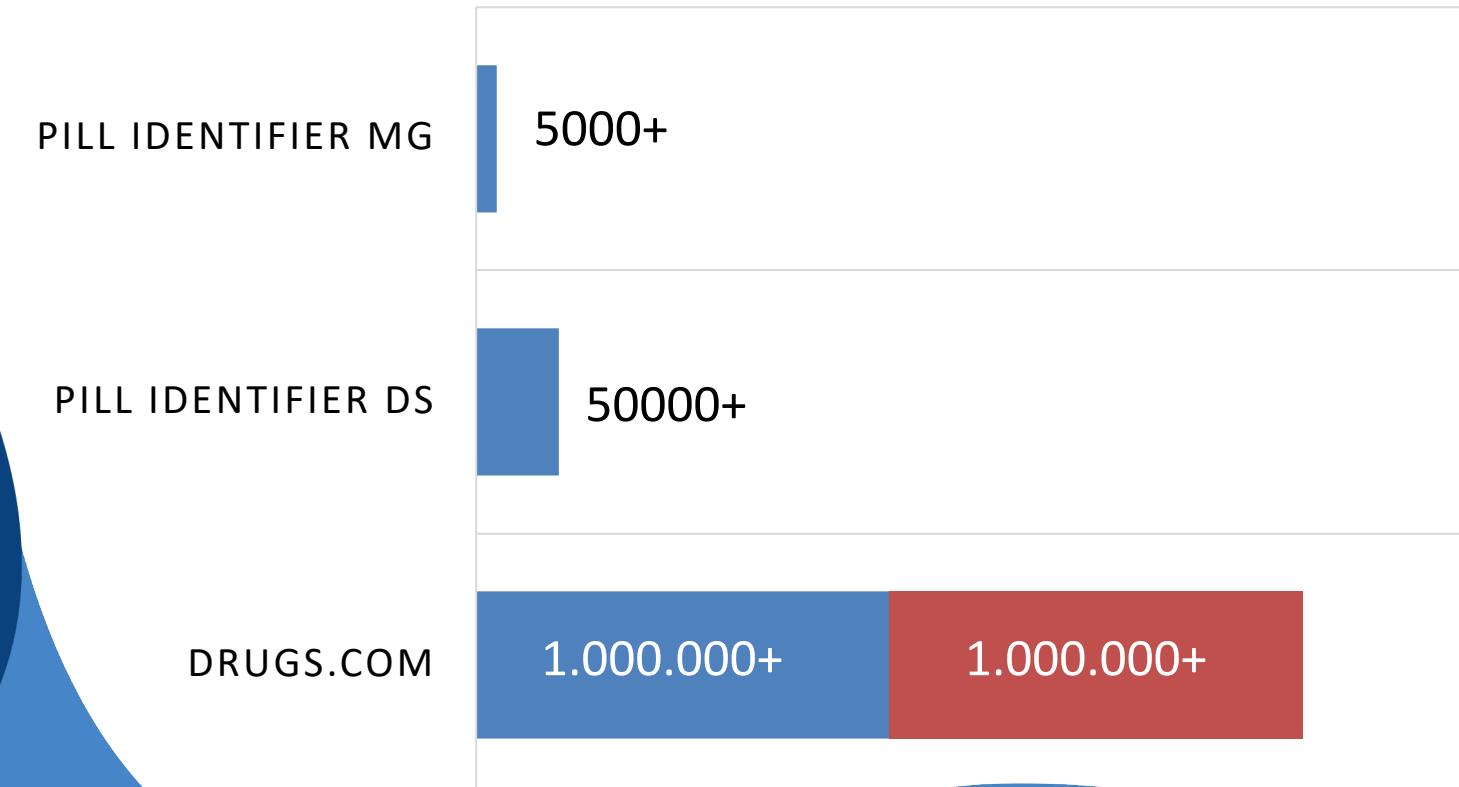


Pill Identifier and
Medication
Guide



TOTAL APPS DOWNLOADS

■ Play Store ■ App Store



Object Detection

Camera input is connected to a pretrained machine learning algorithm. The algorithm classifies camera input in and displays the output on screen.

Machine Learning

We've built 1 Random Forest and 4 Neural Networks to find the best performing algorithm.

Transfer Learning

In transfer learning a neural network which is trained on a similar problem to what is subject of being solved is used.¹ InceptionV3 is an image recognition neural network that was pre-trained on almost 1.5 million pictures.² We used the layers from InceptionV3 in a new model that we trained on 700 pictures of 7 medications taken by us.

The Solution





Live Demo

Proof of concept

Innovative?

Innovation = Invention + Exploitation

Edward B. Roberts, 2007, Managing Invention and Innovation

Overall, innovation describes a sense of purpose to the evolution of humanity[...]

Monica Edwards-Schachter, 2018, The nature and variety of innovation



- 1 data + algorithm + camera input + medication + germany
- 2 change in behavior
- 3 working POC
- 4 focus on change, not increased efficiency

Next Steps

Topics we will focus on after today's presentation.



Live image classification

Distinguish white pills

Enrich database by users

Compare competing algorithms



Thank you!

Plagiarism Disclaimer



We hereby declare that this presentation solely is our own and autonomous work. All sources and aids used have been indicated as such. All texts either quoted directly or paraphrased have been clearly indicated by in-text citations. Full bibliographic details are given in the reference list (see "References"). All internet sources used are also listed in the references list, showing URL and access date. This work has not been submitted and will not be submitted to any other examination authority.

Berlin, 8 July 2021
KALAHARI LTD

References



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