binah.ai
Health Checks Anywhere
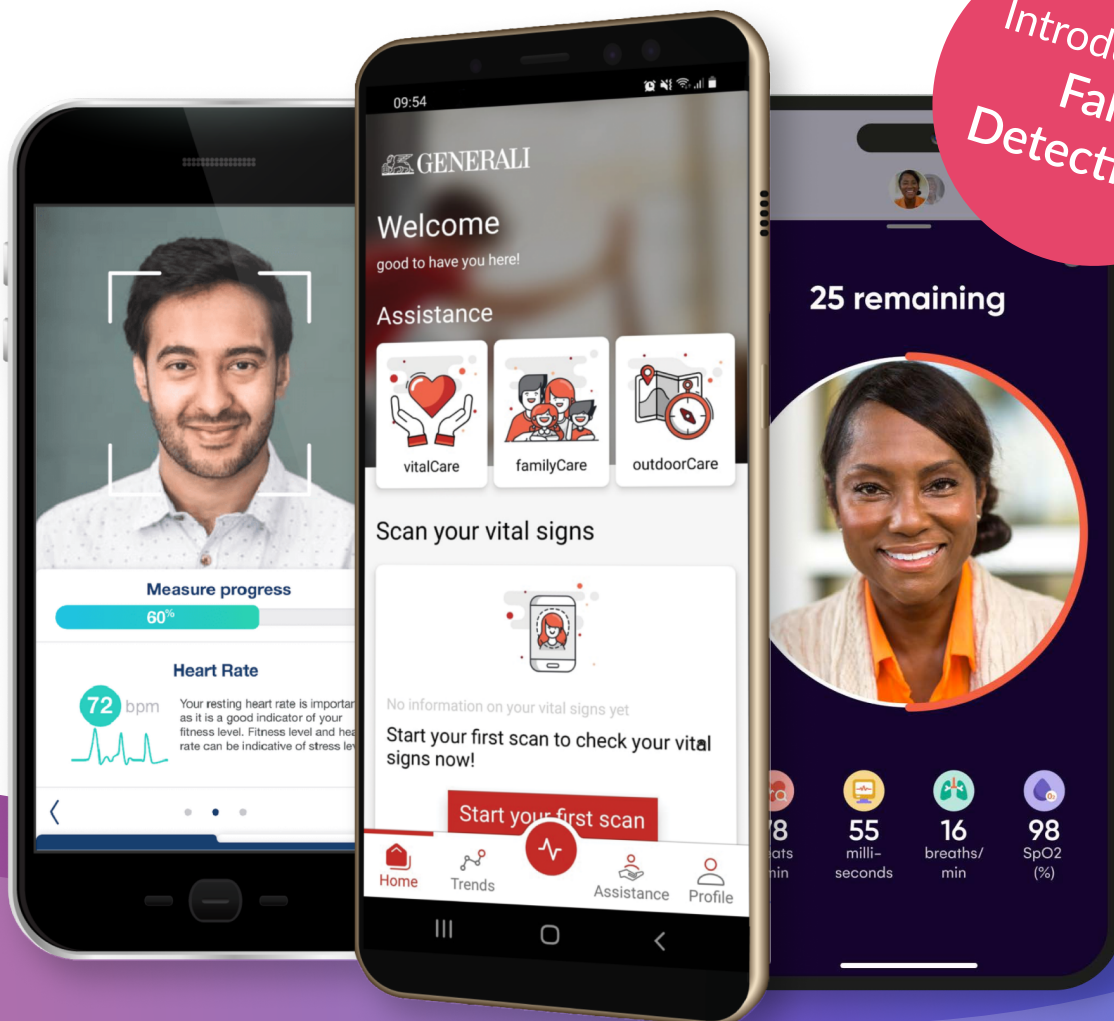
Binah SDK
(Software Development Kit)

Introducing: Fall Detection!

Examples of applications powered by Binah SDK

binah.ai
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Health and Wellness Checks Anywhere

Binah SDK turns smartphones and tablets into health and wellness monitoring tools. Using our easy-to-integrate and UI-agnostic SDK, you can easily add spot or continuous health and wellness checks to your app or workflow and customize the experience to suit your clients' needs without privacy risks or concerns, as all processing is done on the end-user's device.

The Business Need

In our fast-paced and vastly connected world, there is a growing need to measure health and wellness in a way that is simple, accessible and affordable. To foster a business flow that maximizes your ROI, Binah.ai's SDK offering contains all that is required to support and easily scale a variety of use cases, including underwriting, telehealth, chronic disease management, virtual trials, wellness programs, employee wellness, critical operator wellness monitoring, and so much more.

What is Binah SDK?

Binah.ai's Software Development Kit (SDK) powers your existing application and enhances your user experience with the capacity to measure vital signs and mental stress indicators, take bloodless blodd tests, and detect falls.

For spot checks, end users simply look at their smartphone camera while the SDK analyzes a short video stream. For continuous checks, which also include continuous fall detection, end users comfortably wear the Polar Verity Sense™ and the SDK analyzes continuous PPG signals transmitted via Bluetooth®.
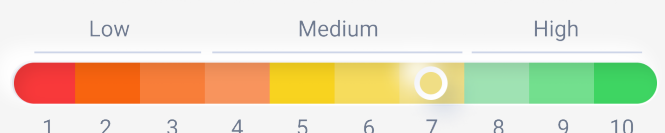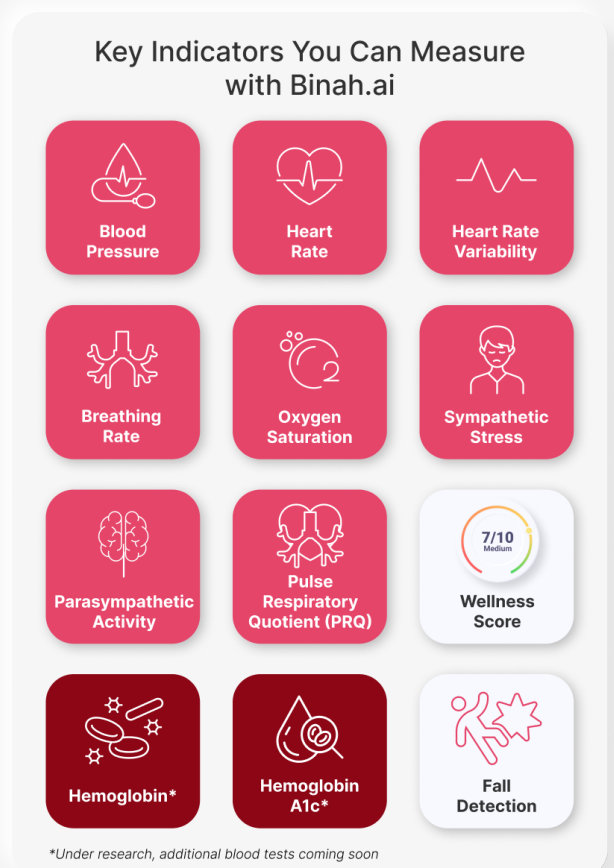
ISO 13485:2016 — DEKRA Certified — Quality Management

HIPAA COMPLIANT

GDPR Representation — CERTIFIED ✓ 2021-04-13 — https://prighter.com/p/17807566507

Binah Wellness Score

Enable clients to get one simple score that reflects general wellness levels in just 60 seconds. The Binah.ai Wellness Score is based on the biomarkers measured by Binah.ai.

Key Indicators You Can Measure with Binah.ai

- Blood Pressure
- Heart Rate
- Heart Rate Variability
- Breathing Rate
- Oxygen Saturation
- Sympathetic Stress
- Parasympathetic Activity
- Pulse Respiratory Quotient (PRQ)
- Wellness Score — 7/10 Medium
- Hemoglobin*
- Hemoglobin A1c*
- Fall Detection

*Under research, additional blood tests coming soon

Low	Medium	High
1 2 3	4 5 6 7	8 9 10

Integration Options

Binah.ai offers SDK libraries for the following languages and platforms:

Android native SDK (Java/Kotlin/React Native/Flutter)
- Android API version 27 and above
- Camera with a supported frame rate of 30 fps
- CPU-ARMv8-A
- The device must have at least 3GB of RAM
  Note: the list of supported devices is continually updated

iOS native SDK (Java/Kotlin/React Native/Flutter)
- iOS devices running iOS 14 and above iPhone 8 and all devices released afterward
- iPad (6th generation) and all devices released afterward

Web SDK (Javascript)
iOS devices
- Safari browsers with iOS version 15.2 or above iPhone 8 and all iPhone devices released
- afterward

Android devices
- Chrome browsers version 95 or above
- Camera frame rate 15 fps and resolution of at least 640x480
- CPU-ARMV8-a
  Note: the list of supported devices is continually updated

Benefits

Measurement results within seconds - End users can get their heart rate results in approximately 10 seconds and the other vitals shortly after.

Spot and Continuous Checks - Versatile health check options to suit your organization's needs and enable health and wellness checks anywhere.

Demographic data not required - The technology calculates measurements based on an analysis of a video stream without any identifiable features and is agnostic to skin color. While input of weight, age and sex is not required, it significantly improves the accuracy of results.

Various SDK Types - iOS and Android libraries in native languages and cross-platform frameworks for mobile application development.
C# library for Windows Applications.
Javascript library for Web applications.

Unique Edge Architecture - All algorithms run on the device to eliminate cloud costs and friction while ensuring stable performance regardless of internet connectivity or speed.

Multiple pricing models to best suit your business needs - Choose from our "per measurement" or "per device" license options and scale effortlessly.
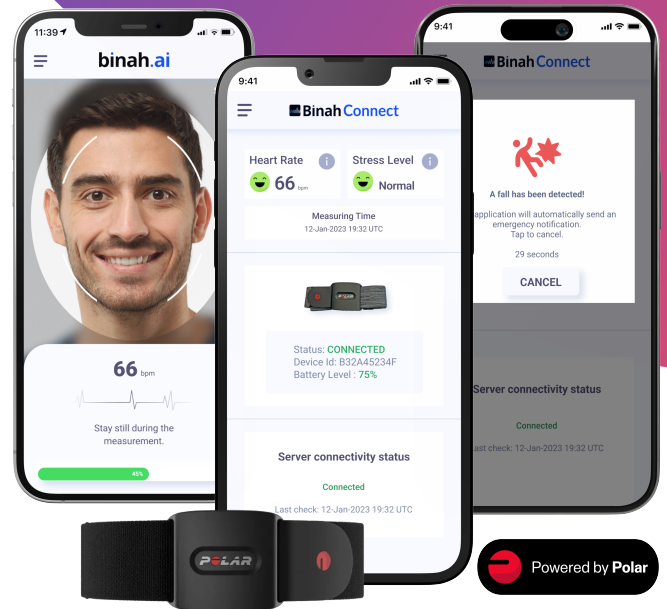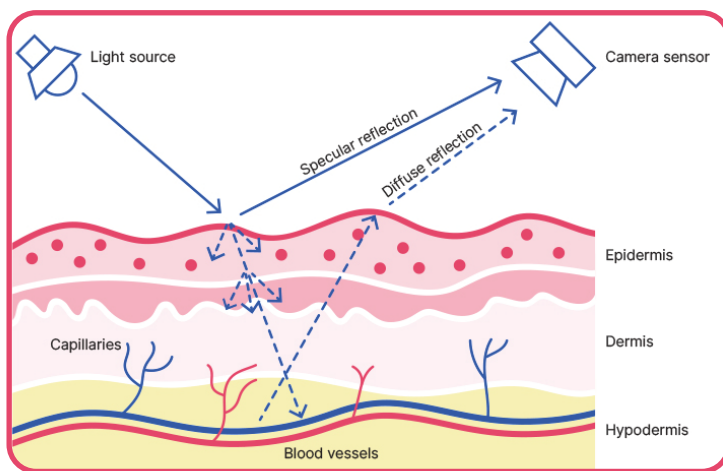
Easy integration and 24/7 human support - The simplest integration with comprehensive documentation, reference applications, and our customer success team available to support your needs at anytime.

UI/UX Agnostic - Enjoy total control over UI/UX design and support for both portrait and landscape orientations.

No Privacy Concerns - Binah SDK provides you with full ownership over end user data to safeguard your end users' privacy and facilitate a smoother GDPR/HIPAA accreditation path.
Binah.ai does not have access to end-user data.

Supports Equitable Access - Enable anyone to access health and wellness with technology that is agnostic to sex and supports all Fitzpatrick scale skin tones.
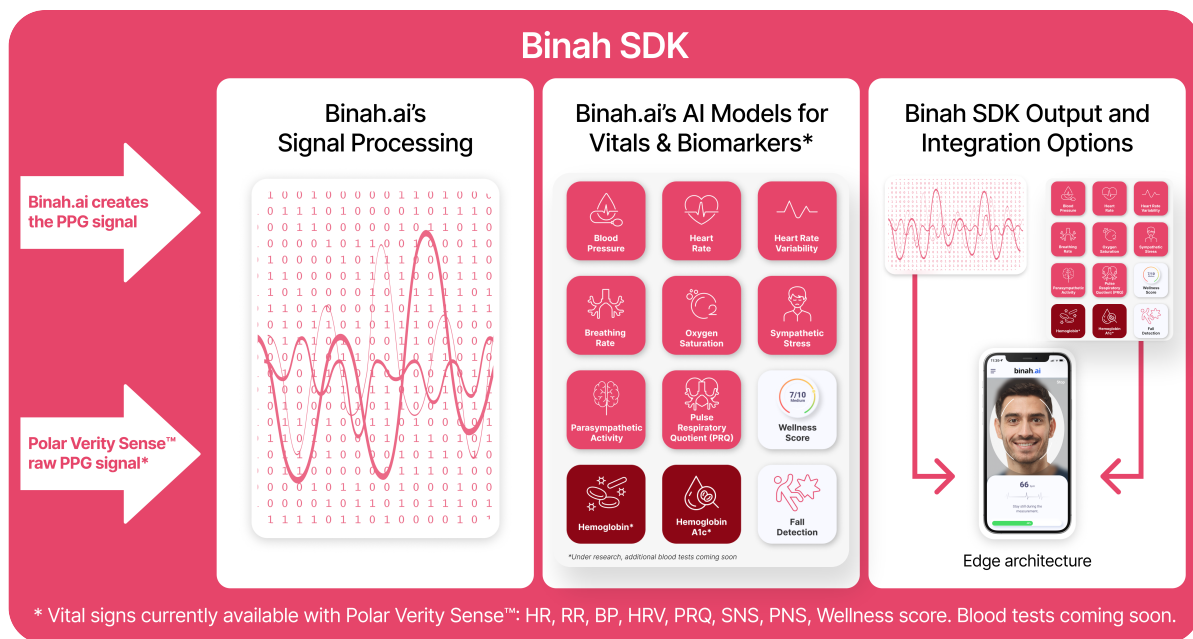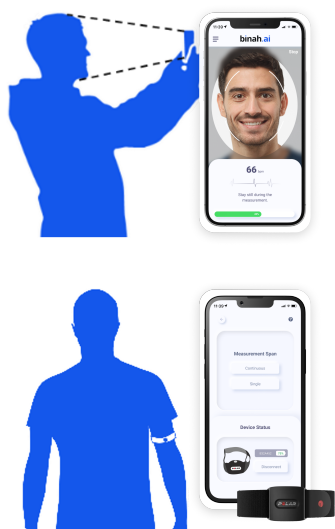
The scientific baseline enabling Binah SDK

Binah.ai's SDK is based on photoplethysmography (PPG). PPG is a optimal technique that has traditionally been used in medical devices, like finger pulse oximeters, to measure changes in light reflected from the vessels near the skin's surface. This is done by emitting light into the tissue on the surface of the skin and subsequently detecting the light transmitted or reflected back. The measured changes enable the assessment of various physiological characteristics.

Powered by **Polar**

Photoplethysmography (PPG)

At Binah.ai, we took PPG technology a step further and developed PPG-based, contactless face scans, which enable everyday cameras to measure these variations in light with the same level of accuracy without requiring contact with the skin.

For cases where continuous monitoring is needed, we also enable continuous checks using the Polar Verity Sense™ by analyzing continuous PPG signals that are continuously sent to Binah SDK via Bluetooth®.

Binah SDK

Binah.ai creates the PPG signal

Polar Verity Sense™ raw PPG signal*

Binah.ai's Signal Processing

Binah.ai's AI Models for Vitals & Biomarkers*

Blood Pressure | Heart Rate | Heart Rate Variability
Breathing Rate | Oxygen Saturation | Sympathetic Stress
Parasympathetic Activity | Pulse Respiratory Quotient (PRQ) | Wellness Score 7/10 Medium
Hemoglobin* | Hemoglobin A1c* | Fall Detection

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Binah SDK Output and Integration Options

Edge architecture

* Vital signs currently available with Polar Verity Sense™: HR, RR, BP, HRV, PRQ, SNS, PNS, Wellness score. Blood tests coming soon.

- Face measurement results are sent to the app
- Binah.ai has no access to end user data
- Continuous monitoring measurements can be sent directly to the customer's cloud

Eager to learn more?

Visit our website https://www.binah.ai
or contact us at https://www.binah.ai/contact/

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