

Altris AI

Ophthalmology Diagnosis
Real-Time Support Platform

OCT interpretation with
Artificial Intelligence





About Altris AI

- Altris AI (Altris, Inc) is a company which applies computer vision and Artificial Intelligence (AI) algorithms to build innovative ophthalmology diagnosis real-time support platform for the automatic, structural and quantitative analysis and detection of glaucoma, age-related macular degeneration, diabetic retinopathy and other retinal diseases on Optical Coherence Tomography (OCT) scans by learning from a large dataset of clinical cases.
- The company has accumulated and legally owns one of the most massive anonymized databases of the retina, optic nerve scans, and images as well as clinical data. We continue increasing our dataset daily in our ophthalmology center with OCT, OCT-Angio scans.
- Altris AI's OCT algorithms have been trained using anonymized OCT retinal scans collected during more than 12 years and are able to detect more than 100 pathological signs, retinal diseases and conditions. The model shows the high level of performance with multi-disease classification accuracy more than 96%.



Altris AI products ecosystem

We create entire ecosystem of products for ophthalmology equipment manufacturers, healthcare providers, pharmaceutical companies, health insurance companies, ophthalmologists and optometrists.





THE MAIN RETINAL CONDITIONS WHICH ALTRIS AI MODEL CAN DETECT

- Normal Retina
- Maculopathy
- Dry Age-Related Macular Degeneration
 - Atrophic AMD
 - Geographic Atrophy
 - Drusen
- Wet Age-Related Macular Degeneration
 - Classic Choroidal Neovascularization
 - Pigment Epithelium Detachment
 - Neurosensory Epithelium Detachment
 - Diffuse Macular Edema
 - Cystoid Macular Edema
 - Subretinal Fibrosis
- Diabetic Retinopathy
- Subretinal Hemorrhages
- Epiretinal Hemorrhages
- Intraretinal Hemorrhages
- Retinal Detachment
- Central Serous Retinopathy
- Epiretinal Fibrosis
- Degenerative Myopia
- Vitreo-Macular Traction Syndrome
- Vitreous Detachment
- Macular Hole
- Lamellar Macular Hole
- Pseudohole
- Central Retinal Vein Occlusion
- Branch Retinal Vein Occlusion
- Central Retinal Artery Occlusion
- Branch Central Retinal Artery Occlusion
- Pigment Choroidal Nevus
- Solar Maculopathy
- Choroidal rupture
- Vitelliform Dystrophy
- Tapetoretinal Dystrophy
- Retinitis Pigmentosa
- Asteroid Hyalosis
- Chorioretinitis
- Multifocal Choroiditis
- Macular Telangiectasia
- Myopia



Altris AI products



Enterprise

Integrated cloud-based AI enterprise solution is available and embedded in OCT device and Clinic Data Management System. AI functionality is available for Macula analysis in 2019-2020.



Web

Altris AI cloud-based web solution is available for all internet browsers. Possibility to work with OCT scans in scan by scan mode or in multi scan mode via web browser.



Mobile

Altris AI cloud-based mobile solution for iOS and Android, available in App Store and Play Store for free downloading. Possibility to work in single OCT scan/image mode via phone camera, multi scans processing is unavailable.



Social Platform

Altris Social Platform is a communication platform for support, marketing communication and other social activities, connect and follow, share and explore clinical cases, ask questions, get answers, connect with other doctors and clinics. Altris Social Platform is available for all users, enterprise, web and mobile.



Altris AI Enterprise Standard Functionality

- Scans/Images pre-processing and normalization, initial features extraction
- Scans/Images AI pre-screening (Norma/Disease differentiation with high accuracy) for OCT
- OCT scans AI differentiation (High Severity, Middle Severity, Low Severity, No Pathology Detected)
- OCT scans grouping and visualization (Red, Orange, Yellow, Green according to severities)
- Access to previous AI pre-screening results
- Access to previous AI pre-screening results with Altris Mobile via QR code (in case of device connection to internet)
- Share case templates for direct sharing to Altris Social Platform (in case of device connection to internet)
- Reports creation and downloading
- Success rate monitoring and feedback collection



Altris AI Enterprise Standard Functionality



Back to WebViewer

OS Macular 3D

00044alexab /
2019-01-15 / 17:02:21 / 512x96 / 9x9mm / SSI:6

OS

IR

Fundus

38



38 / 96



Severity:

all

npd

low

medium

high

SCAN BY SCAN ANALYSIS

DETAILED ANALYSIS

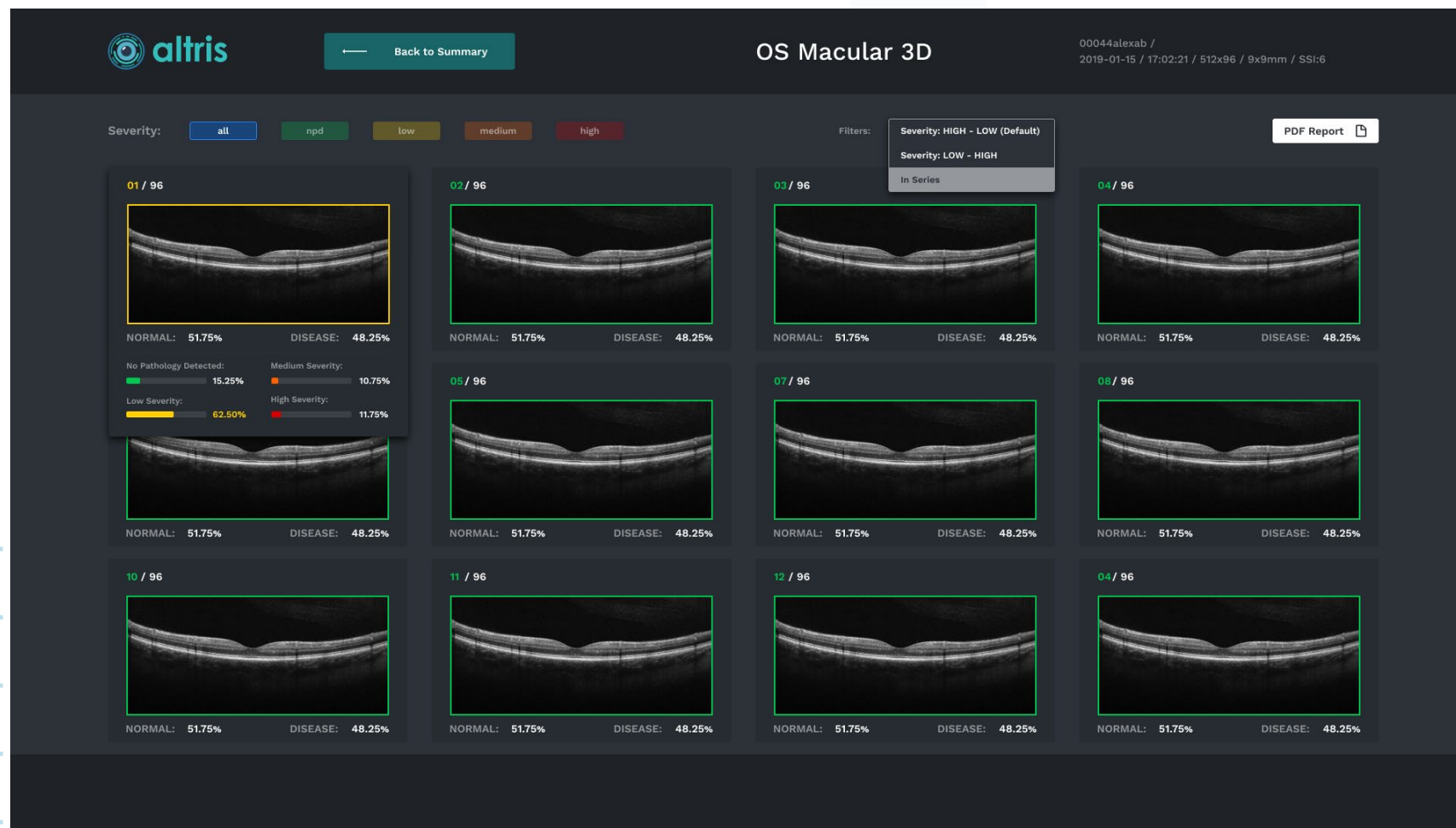
CONDITION: NORMAL: 48.25% DISEASE: 51.75%

SEVERITY:

No Pathology Detected:		15.25%
Low Severity:		62.50%
Medium Severity:		10.75%
High Severity:		11.75%



Altris AI Enterprise Standard Functionality



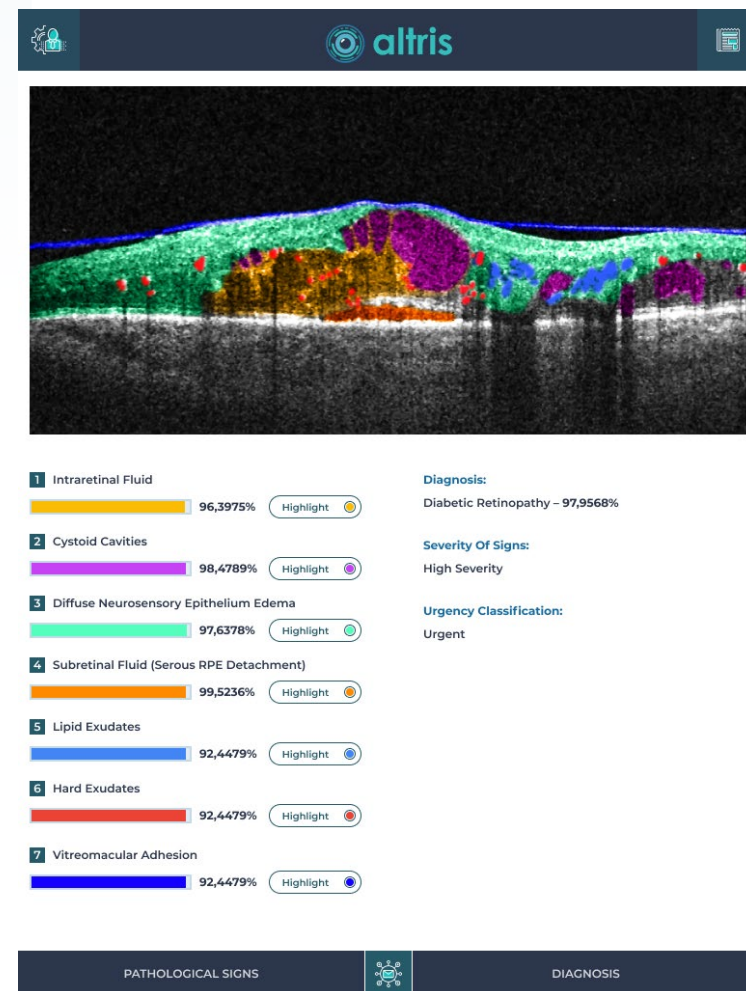
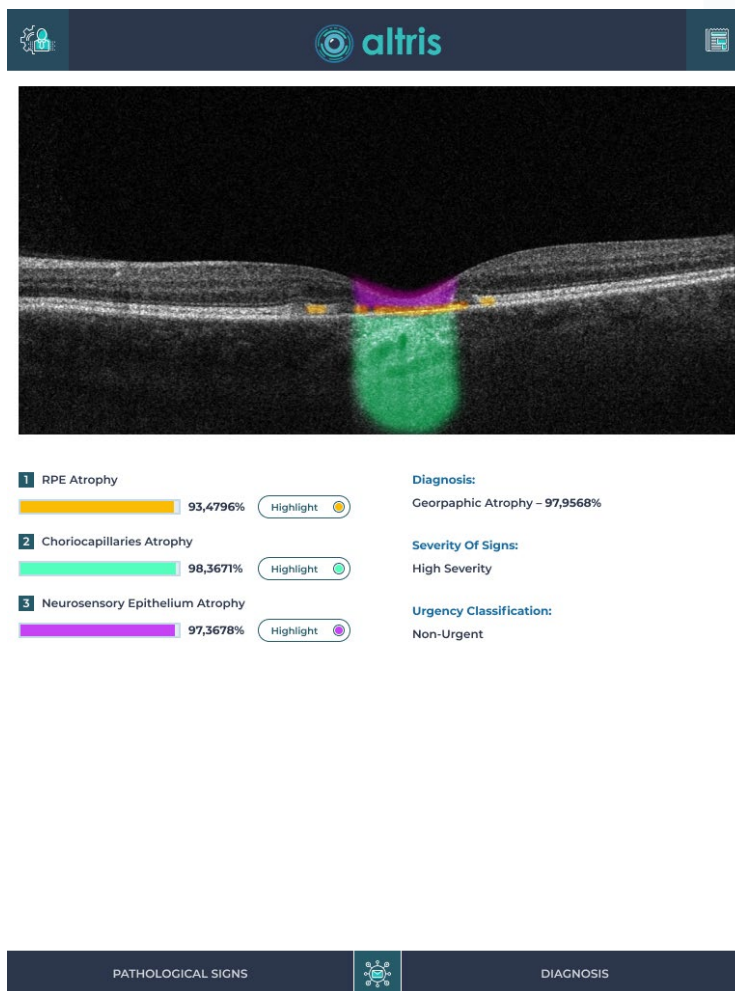
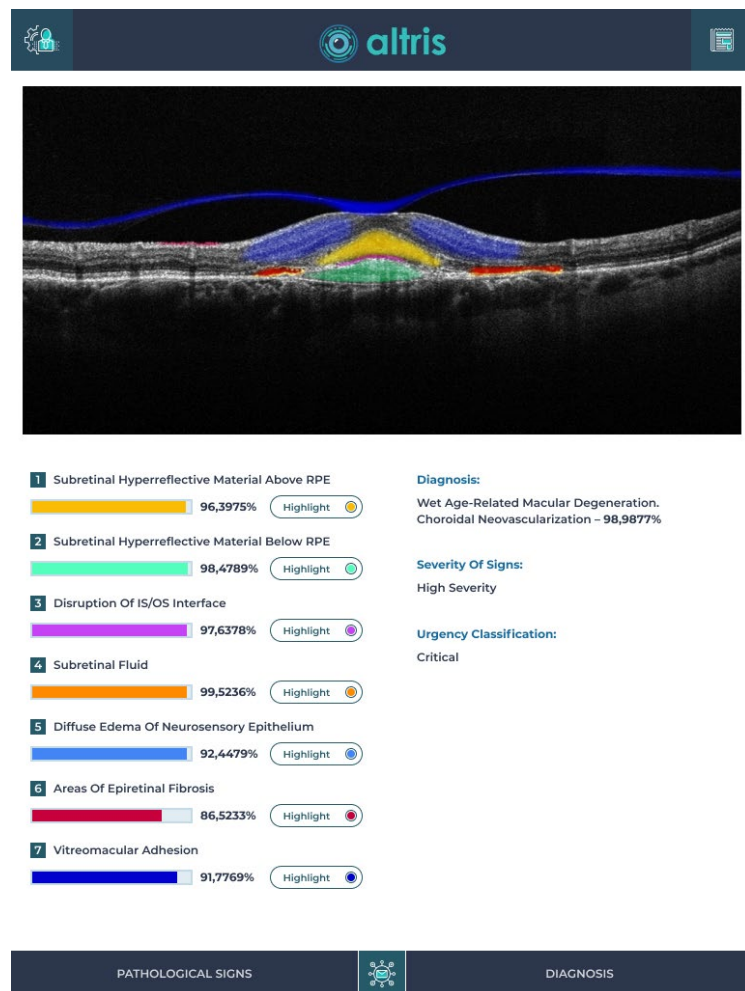


Altris AI Enterprise Extended Functionality

- Scans/Images detailed AI analysis (pathologies and diagnosis detection with probabilities) for OCT
- Detailed AI analysis results visualization with different options (grades, graphs, bar charts, heat monitors, etc.)
- Switching between different visualization options
- Visualization of problem zone and pathologies on scans/images with feature/class activation maps
- Previous Scans/Images detailed AI analysis for OCT
- Access to previous detailed AI analysis results
- AI analysis history tracing (follow-up examination for AI analysis results)
- Previous AI analysis results tracking with Altris Mobile via QR code
- Share case templates for direct sharing to Altris Social Platform
- Success rate monitoring and feedback collection



Altris AI Enterprise Extended Functionality





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