Detecting Retinal Disease with Computer Vision

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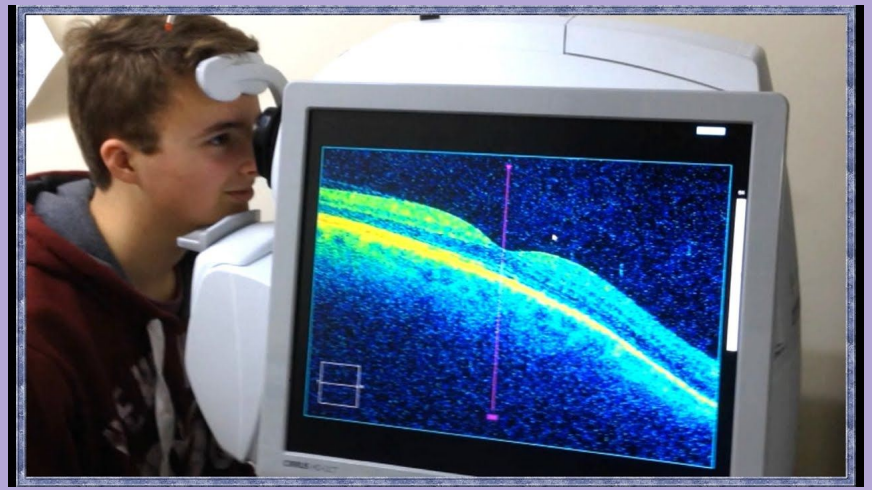
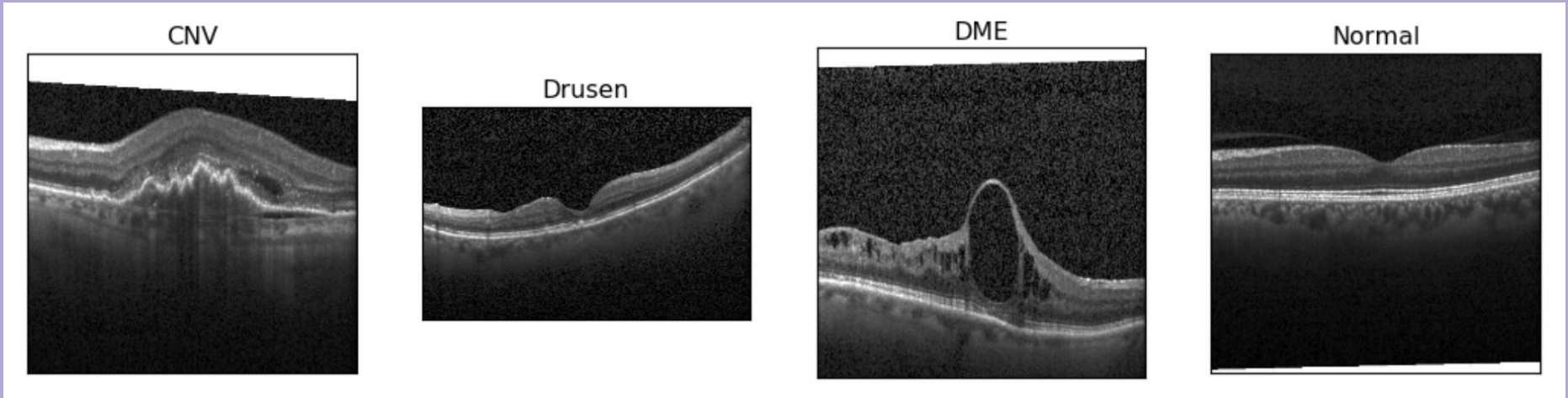
Optical Coherence Tomography (OCT)

- Non-Invasive Diagnostic Ophthalmology
  - Diabetic Retinal Disease
  - Glaucoma
  - Macular Degeneration
- Semi-Invasive Diagnostic Cardiology
  - Visualize coronary arterial damage
- Oncology
  - Detect and diagnose malignant lesions
- Research



Goals of my Research

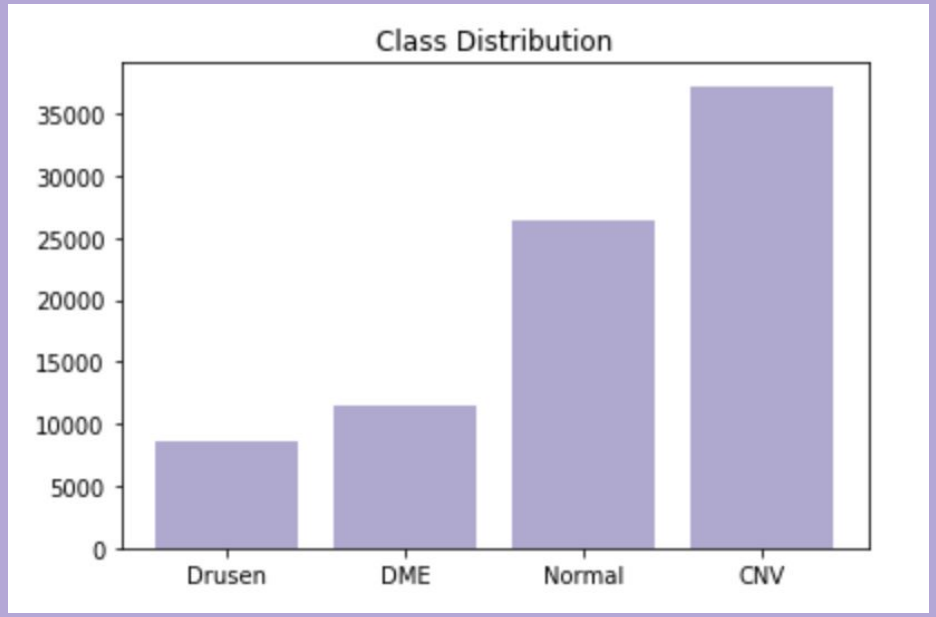
- Train a computer to detect normal and abnormal retinal scans using images obtained with OCT.

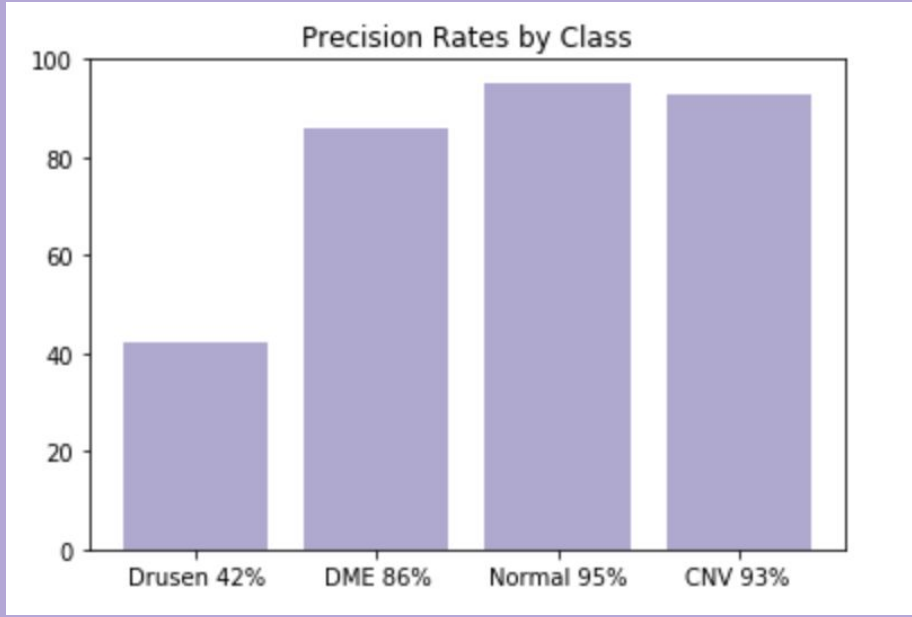


Research Goals, continued

- Provide clinicians and researchers with a tool they can use everyday to incorporate into their workflow
- Make detection and diagnosis of diseases easier and more efficient
- Improve patient outcomes with early intervention

Convolutional Neural Networks & Data





Risk Factor Score

Thank you for your time

Questions?