Sprint #1

Product Mission

For radiologists who aim to maximize patient survival rates and provide the highest quality patient care, the PE Detection Algorithm is an innovative cross-platform software that rapidly and accurately identifies pulmonary emboli on CT pulmonary angiography (CTPA) scans. Unlike traditional interpretation of CTPA scans, our product automates this process to expedite diagnosis, improve accuracy of PE detection, provide revelatory insight into basic avenues of biological research, and enhance patient outcomes globally - even in remote regions and developing countries.

Minimum Viable Product (MVP)

Our MVP for this algorithm will read in data, perform basic preprocessing steps, and process the data in a way that is consistent with the performance criteria for the Kaggle competition.

MVP User Stories

As a clinician, I want a HIPAA-compliant means of uploading and processing patient data using this software to ensure the confidentiality of patient records.

As a hospital administrator, I want efficient, cross-platform software that operates within existing hospital infrastructure.

As a radiologist, I would like a way to verify the result and provide additional comments to the treating physician.

As a primary care physician, I want to have a secure way to log in to the software and view the results and interpretation of the CTPA scans for my patient.

As an emergency medicine physician, I want to have ready access to results and interpretation so I can efficiently administer the care the patient needs.

Comprehensive Literature Review (Link)

Additional Reading:

Review: Deep Learning in Pulmonary Imaging