**Software Team Whitepaper draft**

ScriptChain Health’s web application is a robust, full-stack application. Being a healthcare-based company, the primary focus of ScriptChain Health is on security. ScriptChain Health is focused on patient privacy. Our software practices focus on protecting our users and remaining compliant with modern regulation, such as HIPAA, HITECH compliance. Using AWS, we are ready to scale our application to meet an increased user demand as well as keeping a centralized audit compliant environment.

**Angular Frontend:**

ScriptChain Health has a fully-responsive one-page web environment developed in Angular. Our web application uses the most modern web technology to build our software. The application navigates and loads content using JavaScript, allowing users to swiftly navigate around the website without waiting for the browser to load the content.

From our web application, and can employ ScriptChain Health’s full suite of services. This includes user management/configuration, patient data management, and AI data analysis, with more to come. Interfacing with these services is done simply through the Angular frontend.

ScriptChain Heath seeks to give Providers a highly streamlined experience. Providers can view all of the patients they are treating, as well as a graphical representation of AI analysis done on the patient’s historical data. This equips Healthcare Providers to actively manage many patients in a precise and efficient manner.

**NodeJS Service:**

Using NodeJS as our backend service, ScriptChain Health is able to have a robust backend, allowing us to integrate into Electronic Health Record systems through FHIR APIs. The Node service provides secure management of user data.

User security is our number one priority at ScriptChain Health, and we have taken measures to ensure that our users remain safe. The backend uses several forms of end-to-end encryption and JWT tokens to secure data and manage credentialing for the application’s users. All data coming into the NodeJS service is validated before being handled. The full application uses an encrypted API key to further secure data processing within the application. We do all this to allow our users to exchange information with their healthcare providers in a private manner.

**Cloud-Based Architecture:**

Our AWS architecture is designed for transparency and privacy. We take advantage of several services offered to increase the safety and enjoyment of our users.

Hosting the full suite of our software services on AWS allows us to scale the application to meet user demand. AWS helps us build and maintain our services to be available to users worldwide.

The ScriptChain Health web application uses SSL encryption to secure data passing between AWS services. In-transit encryption is standard throughout a HIPAA compliant cloud-based architecture.

ScriptChain Health maintains a CI/CD pipeline paired with an SDLC approach to software development practices. The SDLC inspires application progress, and the CI/CD pipeline prevents the mishandling of any secure user data. This model allows us to move our services forward in a secure and controllable manner.

**Django Service**

Our Django backend service serves as our applications data analysis workhorse. Providers are able to integrate with several different EHR on FHIR systems to get insight into a patient’s medical history. Using ScriptChain Health, providers will have immediate access to analysis of live patient data, and that’s only part of what the service provides.

ScriptChain Health employs several AI models to form predictions about patients’ cardiovascular health using EHR data. The Django service uses AI analysis to give providers insight into the patient’s medical history. Analytics are reported to providers in a user friendly, graphical format.