What you will be working on?
I will focus on developing artificial intelligence (AI) and machine learning (ML) methods to predict pharmacogenetic phenotypes in underrepresented populations. My work aims to address the biases that exist in current pharmacogenetic research, which have historically focused on individuals of European ancestry. By utilizing large biobank datasets such as the All of Us Research Program and the Million Veteran Program, I plan to identify and characterize genetic variations in populations and develop computational models to predict how these variations impact drug response and safety. The ultimate goal is to create tools that help regulators, such as the FDA, make more informed decisions, ensuring that medical products are safe and effective for all groups.

What are you looking forward to the most in your experience as a WA Scholar?
I am most excited about the opportunity to engage with other scholars and leading academics in the field through the Warren Alpert community. Collaborating with experts on integrating multimodal data — from genetic to patient-level information — will deepen my expertise in developing AI/ML methods that merge data science with therapeutic development.

How do you see this shaping your research and ultimately, career?
This fellowship will be instrumental in expanding my research capabilities and professional network. The opportunity to work on human-centered research will provide me with the hands-on experience needed to develop AI/ML methods that can directly influence therapeutic decision-making. By collaborating with experts and having access to cutting-edge resources, I will build a strong foundation for a career focused on developing methods that bridge the gap between technology, medicine, and equity.

From your perspective, what does it mean to you to be a WA Scholar?
Being a WA Scholar represents a commitment to developing innovative healthcare solutions by integrating biomedical data and translating them into actionable therapeutic insights. For me, it is also an opportunity to contribute to equitable healthcare advancements, ensuring that computational methods are developed and validated across certain populations. This aligns with my passion for research that drives real-world impact.