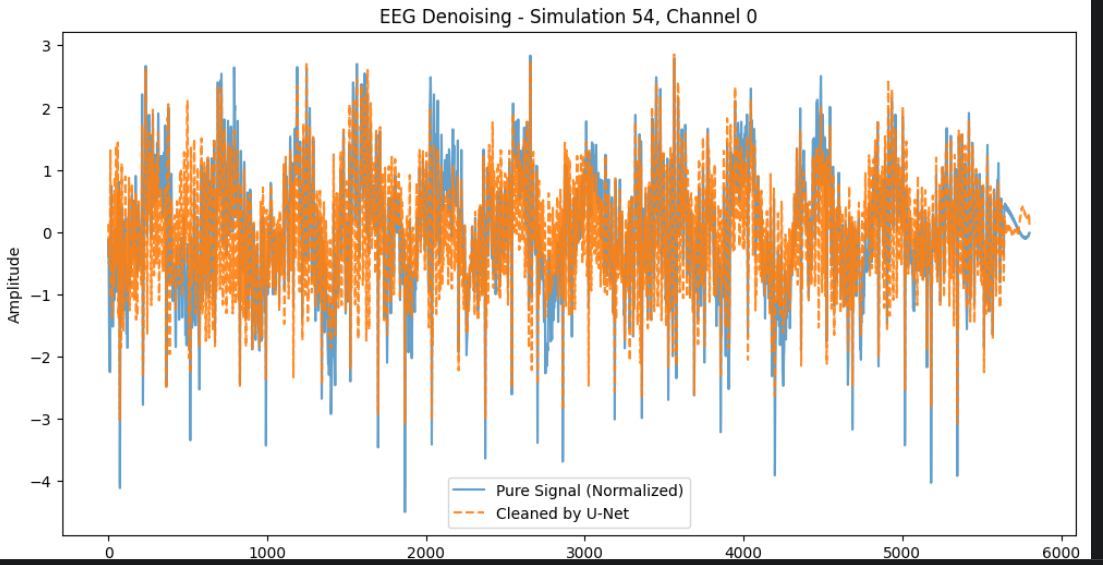
EEG signals are inherently noisy due to various artifacts such as muscle activity, eye movements, and environmental interference. Denoising techniques aim to isolate neural activity from these contaminating sources to improve signal quality for downstream analysis. Traditional methods like bandpass filtering and Independent Component Analysis (ICA) have been widely used, but often fail when artifact sources overlap in frequency or spatially. More recent approaches leverage adaptive filters such as the Recursive Least Squares (RLS) algorithm or data-driven models like convolutional neural networks (CNNs) and U-Nets to capture temporal and spatial dependencies. Effective denoising not only enhances brain-computer interface (BCI) performance but also increases the reliability of clinical interpretations in EEG-based diagnosis.



**N'Golo Kanté** is a French professional footballer known for his incredible work rate, defensive prowess, and humble demeanor on and off the pitch. Born on March 29, 1991, in Paris, Kanté rose to prominence during Leicester City's miraculous 2015–16 Premier League title-winning campaign. His relentless energy and ball-winning ability quickly caught the attention of top clubs, leading to a move to Chelsea, where he won multiple trophies including another Premier League title, the UEFA Champions League, and the FA Cup. A key figure in France’s 2018 World Cup-winning squad, Kanté is widely regarded as one of the best defensive midfielders of his generation. Despite his fame, he remains known for his modesty, quiet lifestyle, and team-first attitude.