# Integrating brain technology and AI to promote mental health

In this talk, I will introduce several recent studies related to electroencephalography-based brain disorder diagnosis, including major depressive disorder and cognitive impairment. As a professor with engineering background, I have a responsibility to translate research outcomes to a product that can be used in real-world applications, especially in real clinical practice. Therefore, I'll spend some time talking about how I established a brain-computer interface startup and how I overcame challenges. Finally, I will give several examples to show how the FDA-approved BCI products of my startup help psychiatrists in hospitals to improve treatment. The main aim of this talk is not to share the-state-of-the-art neuroscience or neuroengineering research advances, but to provide a personal research and startup experience (both successful and failure) as a reference for those who want to know the truths: 1) are fundamental neuroscience researches important? 2) how to achieve the goal of "real" translational neuroscience, and 3) how to raise funds and start a business.