

Japan's Fujitsu delivers advanced technology to US-based startup for treating delirium

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Bringing advanced technologies to market to address social challenges



Japan-based Fujitsu Limited and Delight Health, a Bay Area startup, have announced that Fujitsu will license its Topological Data Analysis (TDA) technology to Delight Health in exchange for an equity position in the company.

This license transfer will support Delight Health's plans to gain rapid US FDA approval by fiscal 2024 and bring to market an advanced delirium detection device to accurately predict the onset of the disorder and address the needs of patients suffering from this ailment.

Fujitsu developed TDA, an artificial intelligence (AI) technology that enables analysis of abnormalities and disturbances in complex, distorted and volatile time series data with broad applications in a range of industries including healthcare, manufacturing and infrastructure.

From July 2018 to May 2021, Fujitsu researchers and D. Shinozaki at Stanford University conducted joint research on the application of TDA to delirium detection using electroencephalogram (EEG) data.

The unique outcome of research was the ability to accurately detect delirium using a portable single-channel EEG device with the bispectral EEG (BSEEG) algorithm significantly enhanced by Fujitsu's TDA technology. In July 2023, Dr Shinozaki cofounded Delight Health (DH) as a new company to commercialise this award-winning technology. Delirium is a serious disorder that impacts millions of people around the world. In the United States alone, 2-3 million older adult patients suffer from delirium annually. It is a medical condition describing a state of acute change in mental status with confusion, lack of attention, loss of sense of time, place and situation.