



Senior Data Scientist Role
April 2017

Medibio, a public Australian company (ASX:MEB), is radically changing the way mental health care is delivered through objective, data-driven assessment and management. The World Health Organization recognizes psychiatric disorders as the largest clinical problem in the world in terms of Disability Adjusted Life-Years with an estimated 350M people suffering from major depressive disorder (MDD) alone. Fewer than 10% of individuals receive optimal treatment upon initial assessment, resulting in reduced quality and quantity of life. The current state of the art diagnostic tools for clinicians are limited to questionnaires and subjective analysis of lifestyle and emotional response. By providing objective, biomarker-based analytical tools to clinicians at the point of patient contact, Medibio seeks to reduce the impact of psychological disorders and aid proper diagnosis.

Medibio has compiled the world's largest dataset of physiologic recordings combined with associated psychiatric assessment. The company is now seeking a Senior Data Scientist to assist in the sensing, discovery, and development of biomarkers related to classification of mental health disorders. The role will entail working with clinical and ambulatory sensed data related to physiologic signals and behavior patterns.

- Collaborate with a team of doctors, engineers, and fellow data scientists around product goals and novel sensing modalities
- Research and develop methods for extracting parameters associated with human physiology
- Develop validated models associated with neurophysiological disorders
- Document and communicate results to the team in preparation for regulatory filing

Qualifications:

- Passion for developing products to serve patients and help drive positive outcomes. The work you will do will directly impact the standard of care worldwide.
- Advanced (PhD preferred) degree in Biomedical engineering, Statistics, Mathematics, Computer Science or other scientific fields (or equivalent experience)
- Senior-level experience developing models and insights from physiologic time-series data
- Deep knowledge and experience in signal processing, feature engineering, machine learning and statistical validation
- Ability to innovate features and models beyond basic routines to meet performance objectives
- Excellent written and verbal scientific communication and time management skills
- Proficiency with Python and associated tools including pandas, sklearn and visualization packages

Nice to Have:

- Experience working with ECG (or other cardiac signals), EEG, and/or clinical PSG data
- Familiarity with health and medical regulatory processes
- Experience working with large datasets and database architectures
- Experience with JavaScript