

# ETHICA DATA INNOVATION HIGHLIGHT



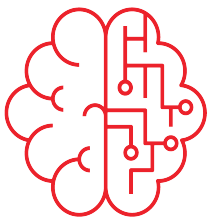
## Ethica

### COMPANY OVERVIEW

Ethica Data is a no-code development platform for health research and clinical trials that creates new opportunities in human-subject research using technology. Researchers use an online dashboard to create mobile and web apps for their projects that support surveys, cognitive tasks, sensor data collection, and wearable integration. Ethica Data's products bring the power of smartphones, wearables, and data science into human-subject research, so scientists can test their hypothesis more accurately, at larger scales, and with fewer resources.

**LOCATION:** NORTH YORK, ON

### TECHNOLOGY



### Artificial Intelligence

## MAKING PHARMACEUTICAL RESEARCH MORE EFFICIENT

Nowadays, health research is expected to be completed faster, at a larger scale, and with higher accuracy than ever before. There are many factors that contribute to success in these areas. For example, in clinical trials, each day that a new drug or therapy is still in the trial phase can incur up to a million dollars of direct costs, not to mention the impact on opportunity cost, or the economic and social cost (as seen during the COVID pandemic). Conducting virtual clinical trials using web, smartphones, and wearables is the best way to optimize the efficiency and decrease pharmaceutical research costs.

### REMOTE CLINICAL TRIALS

Ethica provides a no-code platform for health researchers and pharmaceuticals to create a web and mobile app for their projects. Think of it as Wix.com for health research.

When researchers sign up on Ethica, they start designing their study protocol right away. This protocol includes activities such as eligibility screening, consent, and randomization. They also specify the data sources that should be monitored automatically, and any surveys or cognitive tasks that should be completed. When researchers are done with the protocol, Ethica provides them with a URL that participants can use to join the study.

### EXTRACTING HEALTH DATA INSIGHTS WITH AI

Using the CENGN Testbed, Ethica Data implemented a set of artificial intelligence and statistical models capable of receiving raw sensor data from smartphones and wearables (such as GPS and motion sensor data) to extract health-related behavioural data patterns from them. Ethica Data successfully trained their algorithm models and proved that their platform could handle the system's usage within the expected range. They also estimated the scaling resource requirements needed to reach their performance goal.

**“Using the test results, Ethica Data can provide additional insight into collected GPS data to clients. Now they can have access to mobility mode detection for participants.”**

**Faham Negini**  
Senior Software Engineer,  
Ethica Data



Mohammad Hashemian, CEO and Founder



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