# Binyam Gebresenbet

IT 345

Adjunct Professor Darrell Andrews

# Chapter 16: EventFlow: Visual Analysis of Temporal Event Sequences and Advanced Strategies for Healthcare Discovery

First, let me introduce the owners and builders of this creative interface project. This project is developed and distributed by, a lab that is located at, HCIL University of Maryland. The HCIL has a long, rich history of transforming the experience people have with new technologies. From understanding user needs, to developing and evaluating these technologies, the lab's faculty, staff, and students have been leading the way in HCI research and teaching. The lab is jointly supported by the College of Information Studies and the University of Maryland Institute for Advanced Computer Studies (UMIACS).

Eventflow has been used for medical research, log analysis, cybersecurity, sports analytics, learning analytics, incident management, workflow analysis, pharmacovigilance, epidemiology etc. The analysis of healthcare data has been the developer’s main focus in term of number of partners.

According to the developers, EventFlow is a novel tool for event analytics.  
It provides a way to Visualize and review the data from individual records and their event sequences, search for temporal patterns of interest, using a powerful graphical interface, summarize all the event sequences, their timing and prevalence, and find anomalies, perform data transformations to reveal useful patterns that answer questions you have, last but not least, select cohorts of interest for further studies.

Medical researchers and hospitals have applied EventFlow to analyze treatment patterns and outcomes in Electronic Health Records or claims reports, while network security analysts have studied cyberattack patters and sports analysts have found novel approaches to studying games, overall team performance, and seasonal patterns. Education researchers and universities have used EventFlow to look at class enrollment sequences and student records. Applications for web log, sensor data, business processes, and financial transactions are also emerging markets.

Work cited

“EventFlow: Visual Analysis of Temporal Event Sequences and Advanced Strategies for Healthcare Discovery.” HCIL, hcil.umd.edu/eventflow/#video.