Invitae

Invitae is a leader in medical genetic testing, driving genetic information into mainstream medicine to improve healthcare for billions of people. Invitae is aggregating the world's medical genetic tests into a single service with higher quality, faster turnaround time, and lower prices.

Project Description

Invitae performs a wide range of genetic tests, and reimbursement from 3rd-party commercial and government payers (such as Aetna, UnitedHealthcare, Medicare, etc.) is a critical source of revenue. However, the rapid growth of the genetic testing industry has prompted these payers to reexamine how they pay for these services, and they are imposing a diversity of new requirements for reimbursement such as new prior authorizations, additional documentation, evolving clinical criteria, and different coding rules.

Due to the wide range of payers Invitae works with, these changes are difficult to keep up with, and significant time can elapse before the Invitae Billing & Reimbursement team is fully aware of a payment disruption and can take action to address the issue. Invitae believes there is an opportunity to develop an algorithm that will use claims data to surface these issues more quickly and comprehensively than they currently do today.

Broadly, the project HDAG will engage with Invitae would consist of three main stages.

1. The HDAG team will first **consolidate and clean claims data** as needed, ensuring visibility into per-payer, per-product reimbursement performance.
2. After this is done, the HDAG team will **develop machine learning algorithms** that will highlight anomalies in how payers are reimbursing the services Invitae provides.
3. Once the anomaly detection algorithm is finalized, a system will be implemented to **highlight these changes** to the appropriate leaders in the organization.

Internal Partners:

- **Roxi Wen, Chief Financial Officer**
- **Rich Lusk, Head of Financial Planning and Analysis**
- **Kim Leroux, Head of Billing & Reimbursement**

Datasets: Invitae's claims data, as currently tracked by the billing and reimbursement team.

Coding Languages: Python, SQL, Tableau

Specific Skills

1. Data Analytics: Exploring, processing and deriving valuable insights from data
2. Data Visualization: Creating useful and interactive visualizations
3. Machine Learning: Training, testing, and deploying predictive models

Expected Technical Difficulty: **Intermediate/Advanced**