Intern - Advanced Analytics Network - Technical Institute:
Evidence for Access

Job ID: 202102-103525

Job Function
Internship

Location
South San Francisco, California

Company/Division
Pharmaceuticals

Schedule
Full time

Job type
Temporary (Fixed Term)

Job Level
Entry Level

The Position

Start Date: May 25, 2021 (Summer 2021)
Work Hours: 40 hours per week
Length of Assignment: 6 months
Education Level: Master's, PhD

Preferred Majors/Disciplines: MPH/MSc/PhD degree candidate or recent graduate in Data Science related field (e.g., Statistics, Mathematics, Epidemiology, Health Economics, Outcomes Research, Computer Science)

Given the current uncertainty of the global pandemic and work from home situation for 2021, this internship is currently planned to be virtual with the option for interns to work remotely from within the U.S. Borders. We will keep candidates informed if this changes.

At this time, due to the ever changing situation concerning the COVID-19 global pandemic, for our summer 2021 internship program we will only consider international candidates who are currently in the US and will remain in the US for the duration of the internship.

The Roche Advanced Analytics Network (RAAN) is a cross-functional consortium within Genentech/Roche sponsoring a class of interns that are either pursuing or recently graduated from an MSc/PhD program with expertise in advanced analytics and machine learning to help explore its potential applications in healthcare. The Technical Institute (TI) within Evidence for Access (E4A), US Medical Affairs is a group of data scientists conducting real-world data and modeling studies in collaboration with health economists and outcomes researchers to support evidence-based care decisions, advocate for optimal patient outcomes and experiences, and demonstrate the value propositions of Genentech/Roche medicines.

We are looking for individuals who are:
- Creative problem solvers, quick learners and comfortable experimenting with new
- Demonstrate high productivity and enjoys dealing with ambiguity and applying novel methodologies
- Possess entrepreneurship, passion and curiosity for understanding and interrogating complex data.

**Job Description/Responsibilities**

**Project: Develop and validate a claims-based approach to cancer stage prediction**

This internship is geared towards an individual who is either pursuing or recent graduate from an MPH/MSc/PhD degree with expertise in advanced analytics and machine learning to help us explore its potential applications in healthcare. The intern will join the TI team and work on developing and validating algorithms and models for cancer stage predictions during the patient journey. The successful candidate will explore multiple machine learning techniques to build a high-fidelity and evaluate its application in various RWD assets.

**Responsibilities:**

- With guidance from the intern manager and/or TI members, evaluate causal modeling methods and applications in observational studies for Health Economics and Outcomes Research (HEOR) space using in-house RWD assets (e.g. health insurance claims)
- Review background literature necessary for understanding and implementing advanced statistical and machine learning techniques
- Design, develop, test, implement, validate and document efficient R/SQL programs for conducting, analyzing and reporting observational database studies
- Draft research abstracts, posters and/or manuscripts for publication
- Proactively share learnings and knowledge with the broad E4A team and the wider Genentech/Roche Advanced Analytics community
- Help shape the direction of machine learning and artificial intelligence within Genentech/Roche

**Requirements/Qualifications**

Specific qualifications for this role are:

- Knowledge of a wide range of machine learning techniques and applications
- Experience applying machine learning algorithms and techniques, preferably to observational healthcare data (e.g. electronic medical records, insurance claims)
- Fluency in statistical programming and database querying languages (R, Python, SQL)
- Experience with database architecture and technologies required to undertake analyses on large data sources or with computationally intensive steps
- Experience implementing reproducible research practices like version control (e.g. using Git)
- Working knowledge of relevant national healthcare systems is preferred
- Strong oral and writing communication skills to summarize and explain the findings to audiences who may not have a technical background
- Strong attention-to-detail
- Ability to work collaboratively in a dynamic, team-based environment

**Who We Are**

Genentech, a member of the Roche group and founder of the biotechnology industry, is
dedicated to pursuing groundbreaking science to discover and develop medicines for people with serious and life-threatening diseases. To solve the world's most complex health challenges, we ask bigger questions that challenge our industry and the boundaries of science to transform society. Our transformational discoveries include the first targeted antibody for cancer and the first medicine for primary progressive multiple sclerosis.

Diversity and Inclusion (D&I) are critical to the success of our company and our impact on society. We believe that by championing diversity of background, thought and experience, we can foster a sense of belonging and provide an environment where every employee feels valued, included, and able to contribute their best for the patients we serve. We’re focused on attracting, retaining, developing and advancing our people to their full potential by rewarding bold ways of thinking and integrating inclusive behaviors into every aspect of our work.

Genentech is an equal opportunity employer & prohibits unlawful discrimination based on race, color, religion, gender, sexual orientation, gender identity/expression, national origin/ancestry, age, disability, marital & veteran status. For more information about equal employment opportunity, visit our Genentech Careers page.