

A project from Dr. Olga Kravchenko

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Prototype “Patients Like Mine” (PaLM) overview. The goal of this project is to build an interactive prototype web-based interface for a clinical decision support system that will rely upon electronic health records to help family medicine providers obtain information about treatment pathways and outcome distributions in cases when clinical guidelines are not available or not applicable. As we envision, the system would work in the following way: physician submits a request and specifies parameters that are important for a given patient, using a web interface. The Informatics team along with clinical experts translates this request into logical queries that result in a cohort of patients with similar characteristics and a distribution of outcomes that physician is interested in. Results are returned to the provider in the form of a report that summarizes results (the use of ChatGPT or similar technology can be tested for this task!) and statistical breakdown of the outcomes of interest.

Description of the work. The team of students will work with faculty from Family Medicine Department and Biomedical Informatics to set up an interactive web application framework that will represent the first version of the PaLM prototype. The team will work with a set of representative clinical scenarios and start by creating a paper-based prototype user interface, and mapping between EHR entities named in the clinical scenario or related to it. Expectations are that students would 1) identify an appropriate web platform, 2) use the platform to develop an initial prototype, 3) implement a working prototype using a set of clinical scenarios provided to them by the Family Medicine faculty.

Faculty involved in this project will be available for help and discussions. The project should be completed within one semester.