This class explores the intersection between three fields of computer science research: Programming Languages which considers code, Software Engineering which considers writing code, and Human-Computer Interaction which (in this context) considers the programmer. It will examine experimental tools built for developers using advances in PL theory and their implementation and evaluation using SE and HCI principles.

The class will also cover some of the more practical theory of tool building, like user-centered design theory, prototyping, and bridging the gap between theory and a practical tool.

**תוצרי למידה:**
- Students will understand the theory behind popular developer tools and IDE extensions.
- Students will learn methods to adapt cutting edge research to a realistic environment.
- Students will learn how CS projects involving human users are evaluated.

**דרישות הקורס:**
- Attendance is mandatory.
- Three homework assignments due throughout the semester.
- Final project due after exams.
- There is no exam.