JOSEF KLAFKA

https://jklafka.github.io
902 Drake St, Madison, WI 53715
608-320-8136 ⋄ jlklafka@gmail.com

SUMMARY

I'm a fullstack software engineer and data scientist who's excited about learning new technologies, innovating, and taking leadership on big projects. I'm experienced in analyzing data to build machine learning models, creating responsive and intuitive user interfaces on the frontend, and developing efficient infrastructure on the backend.

Technologies Python, C#, TypeScript, SQL, React, JavaScript, R, SCSS, HTML
Techniques Object-oriented programming, unit testing, data analysis

WORK EXPERIENCE

Software Engineer, Search *August 2020 - Present*
Epic Systems
I design, code and review new features for clinical software. I lead fullstack software development projects in collaboration with other developers, designers, testers and project managers. I propose and give feedback on new features using a mix of the Shape Up and Scrum agile development processes.

Researcher *July 2018 - July 2020*
Carnegie Mellon University and the University of Chicago
I conducted research in natural language processing and cognitive science, building quantitative models of human and machine behavior from open-source datasets. I presented talks and posters on my work at international conferences. I published papers based on my research in scientific journals.

SELECTED PROJECTS

Construct usage data collection and storage pipeline

- Created API for logging data from the autocomplete results a user saw for a search
- Every logging event adds 0 additional latency for users
- Added overnight data aggregation process which reduced data storage needs by 66% while allowing us to store the data for 3x longer

Make search results actionable with "quick action" bar

- Designed bar in the UI that other developers could add action buttons to
- Developed the first action: allow doctors to ordering a lab test with a single button
- Every button click could save a user up to a minute in their workflow

Recommend content to users with machine learning

- Integrated novel recommendation engine into existing UI by showing content to users when they first click into the search bar
- Built internal prototype with fully-functional demo in a week during internal hackathon
- System learned based on each user and similar users, with an over time decay rate hyperparameter

EDUCATION

The University of Chicago *September 2014 - June 2018*
BS in Mathematics and BA in Linguistics with honors
GPA: 3.82/4.00 Honors: Dean's List (all years)