

# Karan Kwatra

<http://karankwatra.com>  
kwatraka@umich.edu | 916.934.4363

## EDUCATION

### UNIVERSITY OF MICHIGAN

BSE IN COMPUTER SCIENCE

BS IN COGNITIVE SCIENCE

Expected May 2019 | Ann Arbor, MI  
College of Engineering

## LINKS

Github:// [karankwatra](#)

LinkedIn:// [karan-kwatra](#)

## UNDERGRADUATE

Artificial Intelligence

Web Systems

Computer Security

Computer Architecture

Logic Design

Data Structures and Algorithms

Technical Communications

Cognitive Psychology

Patent Law

## SKILLS

### PROGRAMMING

Languages:

Python

C/C++

Javascript

Java

SQL

Matlab

Verilog

Technologies:

Git

Bash

Django

Flask

Node.js

React

Angular

AWS

GCP

PostgreSQL

MySQL

Gradle

Docker

Cucumber (BDD)

Flatbuffers

## EXPERIENCE

### PHYSIQ | SOFTWARE ENGINEERING INTERN

May 2018 - August 2018 | Chicago, IL

- Member of backend team on pinpointIQ, an FDA cleared, AI based personalized physiology platform.
- Responsible for writing automated integration tests in Cucumber against the pinpointIQ Python SDK. Integrated the test suite into Jenkins to run nightly.
- Created API/SDK documentation for the pinpointIQ backend. Generated API endpoint documentation from Swagger specification. Integrated the application with the build using Gradle to pull live resources and update documentation. Built in React.
- Developed a data import pipeline for a new sensor using serializtion library Flatbuffers. Upon validation of the sensor, this import pipeline will be used in future releases.

### TOGETHER CHICAGO | SOFTWARE ENGINEER

January 2018 - Present | Chicago, IL & Ann Arbor, MI

- Selected to be on a student team of seven through University of Michigan Multidisciplinary Design Program.
- Creating an open-source social asset data mapping tool for the city of Chicago.
- Employed Agile methodology to build iterative prototypes and select technology stack. This stack includes Django, PostgreSQL/PostGIS, React, Docker, Heroku, Jenkins.

### WOLVERINE BLOCKCHAIN | TECHNOLOGY ANALYST

October 2017 - Present | Ann Arbor, MI

- Presented at town hall event at Ross School of Business on use cases of blockchain technology, specifically its impact on supply chain management.
- Researched and wrote articles on a variety of topics focused on distributed technology (<https://medium.com/wolverineblockchain>)

### MSU DEPARTMENT OF MICROBIOLOGY | RESEARCH ASSISTANT

Jan 2014 - August 2015 | East Lansing, MI

- CMEIAS is the Center for Microbial Ecology's Image Analysis Software.
- Maintained application in C++ and added new functionality to Object and Cumulative Object Analysis modules of CMEIAS.
- Coordinated a team of three programmers, working closely with researchers developing new analysis methods. Helped new programmers acquaint to the application.
- Researched various mathematical and statistical projects associated with the application in effort to introduce new capabilities to the application.

## PROJECTS

### CONCERTTRACK Summer 2017

A web application using Google Maps, Bandsintown and Last.fm APIs. Built using Materialize and Angular.js. The app allows users to search for artists and view their upcoming performances on a map. Includes venue information and links to buy tickets or view artist information.

### RECESS Summer 2017

A workplace solution for break-time location scheduling. Users can sign into an organization, message, check in, and reserve specific locations. Built using SemanticUI, Angular.js, Node.js, socket.io, and PostgreSQL.