

# Samiur Khan

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## Education

### University of Michigan, Ann Arbor

*Class of 2020*

- B.S.E. in Computer Science, Minor in Biochemistry

## Professional Experience

### University of Michigan Medical School

*December 2017 - Present*

#### Research Engineer - Zhang Lab, Dept. of Computational Medicine and Bioinformatics

- Working with two scientists to evaluate the effectiveness of using the distance between amino acids to pre-filter searches for protein structures with similar alignments.
- Designed and ran experiments to evaluate the effectiveness of different protein distance profiles.
- Refactored and modernized pre-existing software libraries, allowing for large scale protein structure alignment testing.

### University of Michigan Electrical Engineering and Computer Science Department

*June 2017 - Present*

#### Incoming Teaching Assistant for EECS 398 - Computing and Tools for Computer Scientists

- Class teaches how to learn about and how to use the various tools used by computer scientists (like git, linux, debuggers, virtual file systems, linters, etc...).
- Maintained the course site (c4cs.github.io), and worked with a team to run office hours to help students with weekly assignments.

### Google – Street View Infrastructure – Mountain View, CA

*May 2017 - August 2017*

#### Engineering Practicum Intern

- Working with a team to prototype an internal tool that showed animations of Google Street View data.
- Designed and implemented a video encoder using FFMPEG that can encode MP4s, FLVs, and WebM videos. Worked with a team to incorporate CPU benchmarking tests to verify that it was servable over HTTP requests.
- Deployed the video recorder with a C++ based HTTP server that can handle video generation for different input requests.

### Google – Computer Science Summer Institute – New York, NY

*July 2016 - August 2016*

#### Participant

- Worked with a team of three to build a web application, called Getventures, that helps users locate hang out spots that are geographically equidistant from invited colleagues. Designed the algorithm to calculate a center latitude and longitude.
- Responsible for designing and implementing a non-relational database scheme with Google Datastore and designing the handlers with the webapp2 Python API.

## Personal Projects

### Condit

*August 2017 - Present*

- C++ object for holding information about the status of binaries. Working with a team to expand the tool to support programming languages and to expand its use. Learn more: [github.com/samiurkh1n/Condit](https://github.com/samiurkh1n/Condit)

### Seshat

*September 2017 - Present*

- An easy-to-deploy logging microservice to help track the state and health of large-scale distributed systems built on gRPC and protocol buffers. Learn more: [github.com/PranaProject/Seshat](https://github.com/PranaProject/Seshat).

## Awards

- Gates Millennium Scholar, merit and needs based scholarship granted to less than 2% of around 55,000.
- Shipman Scholar, merit scholarship granted to less than 1% of 15862 incoming students.
- Most Technically Advanced Feature, awarded by Google for Getventures app.

## Skills & Interests

**Languages and Technologies:** C++, C, Shell Scripting, Python, Protocol Buffers, gRPC, MATLAB, HTML, CSS, JavaScript

**Skills:** Public speaking, software documentation, software API design, software testing, computer architecture, algorithm design and analysis

**Interests & Hobbies:** I love non-fiction (particularly history) books. I am also an amateur road cyclist.