

# Fatima Qarni

Computer Science Masters Student @ Northwestern University

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🌐 qarni

## Education

Northwestern University  
**M.S. Computer Science**  
GPA: 3.2  
Graduating December 2020

University of Illinois at  
Chicago - Honors College  
**B.S. Computer Science**  
Major GPA: 3.8

## Skills

### Languages:

Proficient: Java

Intermediate: Python, C, C++

Familiar: MySQL, JavaScript  
HTML/CSS, Go, MATLAB

### Libraries/Frameworks:

CUDA, React.js

## Relevant Coursework

- > Distributed Systems
- > Parallel Programming
- > Operating Systems
- > Parallel Processors
- > Software Architectures
- > Object Oriented Languages
- > Networking
- > Algorithms
- > Databases

## Leadership

UIC Honors College  
**Ambassador: 2016 - 2018**  
Mentored engineering freshmen through their first year and planned social/mentorship events to aid with their transition to UIC.

## Conferences

Grace Hopper Celebration:  
UIC Scholarship 2017, 2018

## Experience

**Microsoft** | Redmond, WA  
**Incoming Software Engineer Intern** Summer 2020

**Microsoft** | Redmond, WA  
**Software Engineer Intern: Azure SDK - Java** Summer 2019

- > Developed an extension for the Microsoft Authentication Java library to allow for single sign on scenarios for the Azure SDK.
- > Created a persistent token cache to replace the in-memory cache, which allowed for secure storage with encryption using OS specific Data Protection APIs.
- > Allowed for use across different languages and Microsoft products by ensuring the cache is thread/process safe.

**Braintree (a PayPal company)** | Chicago, IL  
**Software Engineer Intern: Gateway Sustainability** Summer 2018

- > Updated Capistrano tasks for deployment of code across servers.
- > Refactored SQL queries to be more efficient and used Rails to allow old data from unused accounts to be redacted.

**UIC Department of Computer Science** | Chicago, IL  
**Teaching Assistant (Intro CS classes in C)** Aug 2016 - May 2017

- > Held office hours and facilitated a weekly lab session.
- > Assisted professor with testing/grading of projects.

## Projects

**Canny Edge Detection with CUDA** Winter 2020

- > Detects edges for images using the Canny algorithm.
- > Parallelizes computationally intensive parts of image processing.
- > Utilizes shared memory and other best practices for parallel w with CUDA to optimize code and shorten processing time.
- > Uses CUDA (parallel computing platform/API) - C.

**Google Pensieve** Sep 2018 - May 2019

- > Allows a Google user to see what they have at risk in case of an account breach and understand how to be safer with data storage.
- > Categorizes and analyzes a user's photo data using image recognition, photo time and location, as well as other metadata.
- > Flags risky documents and shows them to the user.
- > Uses Google Vision and Elasticsearch - Python.

**Midpoint - Android App** Spring 2017

- > Allows two users to find a meeting place between them, given inputs of their locations and distance willing to travel.
- > Uses Google Maps and YELP APIs, and JUnit for tests - Java.