

# Fatima Qarni

Computer Science Masters Student @ Northwestern University

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## Education

Northwestern University  
**M.S. Computer Science** *GPA: 3.3*  
**Graduating March 2021**

University of Illinois at Chicago  
**B.S. Computer Science** *GPA: 3.8*

## Skills

### Languages:

- › *Proficient:* Java
- › *Intermediate:* Python, C, C++
- › *Familiar:* SQL, JavaScript, HTML/CSS, Go, MATLAB

### Tools & Frameworks:

CUDA, React.js, JUnit, Git

## Relevant Coursework

- › Distributed Systems
- › Parallel Computing
- › Operating Systems
- › Parallel Processors
- › Scalable Software Architectures
- › Networking
- › Graduate Algorithms
- › Databases
- › Object Oriented Languages

## Leadership & Involvement

- › **UIC Honors College**  
**Ambassador: 2016 – 2018**  
Mentored engr freshmen and planned mentorship events.
- › **UIC CS Teaching Assistant:**  
**Fall 2016 – Spring 2017**  
Held office hours and facilitated weekly lab session.

## Conferences

Grace Hopper Celebration:  
UIC Scholarship 2017, 2018

## Work Experience

### *Microsoft* | *Virtual*

**Incoming Software Engineer Intern: Visual C++** *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.

## Projects

### **Canny Edge Detection with CUDA – C**

*Winter 2020*

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

### **Google Pensieve – Python**

*Fall 2018 – Spring 2019*

- › Categorizes and analyzes a user's Google data using image recognition and file metadata.
- › Flags risky documents on a Google user's account to help user see what they have at risk in case of an account breach and understand how to be safer with data storage.
- › Displays graph of all of a user's Google data over time.
- › Uses Google Vision, Elasticsearch, and Plot.ly.

### **Midpoint – Android App – Java**

*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.

### **Hulu Party – Chrome Extension – JavaScript (in progress)**

*June 2020*

- › Synchronizes video playback so users can watch Hulu with friends!
- › Includes video chat so users can talk while watching Hulu.