

Fatima Qarni

Computer Science Masters Student @ Northwestern University

🏠 <https://fatimaqarni.me>
✉ fatima.q832@gmail.com
☎ (224) 578-6424
🌐 qarni

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
- › Algorithms
- › Databases
- › Object Oriented Languages

Leadership & Involvement

- › **UIC Honors College**
Ambassador: 2016 – 2018
Mentored engineering freshmen students 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

Raft – Go

Spring 2020

- › Built a version of a database using Raft, a consensus algorithm for managing a replicated log, for my distributed systems course.

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.

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.

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.