

# Benjamin Yi

UNDERGRADUATE · COMPUTER SCIENCE

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## Education

### Brooklyn College

AUG. 2016 - DEC. 2019

B.S. in Computer Science

GPA: 3.7

**Courses** Data Structures, Algorithms, Artificial Intelligence, Operating Systems, Software Engineering, Computer Architecture  
Robotics, Database Systems, Theoretical Computer Science

## Experience

### Research Experience for Undergraduates (REU)

MAY 2016 - JUL. 2016

University of Massachusetts Lowell

- Tested early stages of a program designed to sniff and retrace unencrypted mouse data transmitted via Bluetooth by analyzing the accuracy of replaying mouse trajectories when hacking a graphical authentication interface.
- Proofread a research paper by Research Assistant Xian Pan on the mechanism used to replay the sniffed mouse trajectories.  
[<https://www.ndss-symposium.org/wp-content/uploads/2017/09/How-Privacy-leaks-from-Bluetooth-Mouse.pdf>]
- Refactored a scrambled Android keyboard built by the department by updating UI components in Java and Android Studio.  
[<https://apkpure.com/pek-privacy-enhanced-keyboard/com.seu.softkeyboard>]

## Projects

### J.P. Morgan Chase - Code For Good, Hackathon

OCT. 2016

[<https://github.com/brooklyn2016/team-21>]

- Designed and built an application for Eden II, a non-profit organization that provides aid for the autistic community through education, residential care, and family support.
- Collaborated with team to organize overall design and implementation of the product, and create proper workflow via Git.
- Programmed an iOS application in Objective-C to provide Eden II caregivers with an interface to record and label incoherent words spoken by clients.
- Implemented functionality to connect to a database which held a unique dictionary of words for each registered client.

### Gemini, Personal Project

[<https://benjyi.github.io/projects>]

- Architected and built a single-player Mahjong tile matching game using Objective-C and Xcode.
- Engineered graphics using Cocoa AppKit to manipulate the location of views based on unique identifiers and coordinates.
- Learned Swift by refactoring and porting original Objective-C codebase to Swift 4.0.

### CISC3171 Software Engineering Group Project

[[https://github.com/BENJYI/too\\_many\\_cooks](https://github.com/BENJYI/too_many_cooks)]

- Demonstrated knowledge of the waterfall SDLC model by composing a system design report for a restaurant management system and building the application using Ruby on Rails.
- Programmed JSON REST API to interact with RDBMS to store employee rosters, order lists and customer account data.

### CISC3320 Operating Systems Group Project

[<https://github.com/CISC3320SP19/cisc3320proj3-jabytz>]

- Tested and analyzed the impact of context switching overhead in the Linux OS by building and running a C program, designed to distribute work across multiple processors using the pthread library and FIFO scheduling algorithm.
- Observed and compared the performance differences of context switching of two processors against a single processor by computing the sum of integers stored in a large array.

## Skills

**Languages** Python, C, Java, Swift, Objective-C, Ruby, JavaScript  
**Frameworks** Git, Xcode, Ruby on Rails