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

- Assisted Professor Xinwen Fu on early stages of a hacking software designed to bypass graphical user password using a Bluetooth sniffer on a mouse transmitting unencrypted data by testing the accuracy and success rate of the software.
- Proofread a research paper on the mechanism used to replay sniffed mouse trajectories on a graphical password interface. [https://dl.acm.org/citation.cfm?id=2382309]
- 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 an application in 24 hours for, Eden II, a non-profit organization that provides aid for the autistic community through educational programs, residential care, and family support.
- Collaborated with newly acquainted team members to organize overall design and implementation of the product, and to create proper workflow using Git.
- Designed and programmed an iOS application in Objective-C to provide Eden II caregivers with an interface to record common incoherent words spoken by clients.
- Implemented functionality to connect to a database holding unique dictionaries for registered individuals, provided by a team member.

Gemini, Personal Project

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

- Architected and built a single-player puzzle game based on a Mahjong tile matching game using Objective-C and Xcode.
- Engineered game logic to update game graphics without additional dependencies or frameworks.
- Programmed game logic such as movement limitations, history tracking, and progress saving.
- Refactored and ported original Objective-C codebase to Swift 4.0.

CISC3171 Software Engineering Group Project

[https://github.com/BENJYI/too_many_cooks]

- Designed and built a restaurant management system using Ruby on Rails.
- Composed a system design report detailing use cases and requirements.
- Designed several UI components and controls including menus for customers, order summaries for delivery personnel, and employee management panels for managers.
- Programmed JSON REST API to interact with RDBMS using PostgreSQL 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