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 with the development of a software designed to sniff and retrace unencrypted mouse data, transmitted via Bluetooth, by analyzing the success rate when bypassing the graphical authentication interface, Microsoft Picture Password.
- Proofread a research paper, by Research Assistant Xian Pan, on the mechanism used to replay the sniffed mouse trajectories.
  [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 via Git.
- Designed and programmed an iOS application in Objective-C to provide Eden II caregivers with an interface to record and label incoherent words spoken by clients.
- Programmed 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 puzzle game based on a Mahjong tile matching game using Objective-C and Xcode.
- Engineered graphics using Cocoa AppKit to manipulate the location of subviews based on unique identifiers and coordinates.
- Programmed additional game logic such as movement limitations, history tracking, and progress saving.
- 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]

- Built a restaurant management system using Ruby on Rails applying the waterfall SDLC method by designing a system design report to detail software requirements and use cases.
- Designed 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, 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