Michael Chen

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Education

University of California, Berkeley – Berkeley, CA **August 2014 – Present**
Bachelors of Arts in Computer Science, GPA: 3.3 Expected Graduation: May 2018

Relevant Courses Completed or In Progress

- Structure and Interpretation of Computer Programs
- Data Structures
- Introduction to Ruby on Rails
- Linear Algebra and Differential Equations
- Internet Architecture
- Machine Architecture
- Discrete Mathematics and Probability Theory
- Introduction to Artificial Intelligence
- Efficient Algorithms and Intractable Problems
- Software Engineering

Work Experience

Software Engineering Intern - MechDome **June 2016 – August 2016**

- Developed graphical iOS applications using OpenGL ES and manipulated graphics windows with iOS Core Animation Layers
- Utilized atomic operations on different threads to parallelize OpenGL ES graphics rendering on iOS devices
- Pulled graphics rendering off of a mobile device's main UI thread to background threads to boost any graphical application's runtime efficiency

Software Engineering Intern - RFID4U **May 2015 – September 2015**

- Developed an iOS app with RESTful APIs for backend data storage and barcode reading libraries that empowered one of our clients to automate daily business processes such as employee checkins and boost business efficiency
- Conducted hardware testing on RFID (radio frequency ID) devices such as TSL readers to troubleshoot RFID hardware for clients
- Worked with legacy code and implemented additional functionality in Android and iOS applications that use NFC and RFID devices to help manage data and supply chain processes

Class and Personal Projects

Gitlet Version Control System (Java)

- Implemented a version-control system that tracks the history and previous states of local text files that can be revisited and reloaded
- Operates using Github functionality such as add, remove, commit, rebase, merge, branch, reset, etc.

Data Network Simulator (Python)

- Implemented distance vector, poisoned reverse, and split horizon algorithms in conjunction with learning switches to handle packet forwarding and router functionality in a network

MIPS Assembler (C)

- Created an assembler that converts MIPS assembly code to machine language to be run by the CPU

Pacman AI (Python)

- Designed and implemented a Pacman AI using game trees and graph search heuristics to efficiently determine the optimal sequence of actions to avoid ghosts and maximize the player's score

Scheme Interpreter (Python)

- Created a terminal program that reads, interprets, and runs Scheme code

Splitr (Objective-C)

- Developed a mobile application for bill splitting that processes the photo of a receipt through Optical Character Recognition to list out items and allows the user to assign items to each person and subtotal the respective owed amounts

Skills

Proficient Languages and Practices

- Java, Python, Objective-C, Ruby on Rails, Swift, C, HTML, CSS, Github

Familiar Frameworks

- Parse, Tesseract (Optical Character Regognition), TSL (RFID), JUnit (Testing), VSBarcode (Barcode Reading for Mobile Devices), Google Maps, OpenGL (Graphics), OpenGL ES 1.1/2.0 (Mobile Graphics)