James Mackey

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Education

Cornell University, College of Engineering, Ithaca, NY
Major: *Computer Science*; Minor: *Business*; GPA: *3.26*; Anticipated Graduation Date: *May 2017*
Related Coursework: *Intro to Computing; Object-Oriented Programming and Data Structures; Functional Programming; Computer System Organization; Operating Systems; Unix and Scripting; Multi-variable Calculus; Linear Algebra; Differential Equations; Intermediate Web Programming; Discrete Structures*

Guilford High School, Guilford, CT
Class Rank: 4 of 276
SAT: 2300

Related Experience

Software Engineering Intern, *Workday*, *Pleasanton, CA*, *May 2015-August 2015*
I worked on an application to integrate with the automating testing system that:
- Parses XML and .log files with sizes on the order of gigabytes into BSON
- Searches the database for runs by test case id, date, failures, etc.
- Represents a test run in a front-end application using asynchronous lazy loading
- Reduced load time in the browser from up to 20 minutes to less than 1 second

Software Engineering Intern, *Cardiopulmonary Corp*, *Milford, CT*, *May-August 2014*
- Developed mobile application allowing nurses and doctors to (1) view current assignments, (2) change assignments, (3) view alert history, (4) transfer assignments to a co-worker.
- Queried and altered SQL Server database based on user input.
- Planned and implemented the application with guidance from a project manager.

Projects

- **Breakout**:*Fall 2013, Python* - Take on the classic breakout game that imitates a snowball fight
- **Connect Four**: *Spring 2014, Java* - Implemented game logic & AI bot using minimax algorithm
- **MapReduce**: *Fall 2014, OCaml - Async lib.* - Developed MapReduce structure & associated applications (i.e. map words from docs to file names, find common friends in graph)
- **Honeypot**: *Spring 2015, C* - Multi-core server that accepts & categorizes network packets & tracks statistics related to their arrival
- **Email Inbox**:*Fall 2015, Python* - Concurrent implementation where main thread passes off incoming SMTP connections to thread pool to process. Emails stored in text docs

Other Work Experience

Bartender: Bar 80 - *June 2014 - April 2015*
Student Employee: Cornell United Religious Works, *September 2015 - Present*
Circulation Assistant: Cornell University Library, *September 2014 - May 2015*
Owner/Laborer: West Lake Services Lawncare and Snow Removal, *July 2010 - August 2014*

Leadership

Musical Director, Fall 2015, Cayuga's Waiters
Show Coordinator, Spring 2015, Cayuga's Waiters
Class President, Grades 11-12, Guilford High School
Captain, Grade 12, Guilford High School Varsity Hockey
President, Grade 12, Guilford High School Voices (A Cappella group)

Additional Skills

Languages: Proficiency in Python, Java, C#, OCaml, HTML, Javascript, CSS, PHP and SQL
Frameworks: Google Web Toolkit, ASP.NET, Meteor, Bootstrap
Communication: Proficiency in French

Activities / Interests

- Tae-Kwon Do (II Degree Black Belt)
- Gaelic Football (Irish Cultural Sport)
- Barclays Premier League fan
- Cayuga's Waiters a cappella
- Phi Gamma Delta Fraternity
- Guitar, ukulele, and bass