# **Nathaniel Morihara**

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### **EDUCATION**

Cornell University, College of Engineering, Ithaca NY

May 2015

Bachelor of Science Degree in Computer Science GPA: 3.16

#### **COURSE WORK**

• Computing – MATLAB & Robotics • Object-Oriented Programming & Data Structure • Data Structures & Functional Programming • Artificial Intelligence • Entrepreneurship for Engineers • Discrete Mathematics

• Digital Logic & Computer Organization • Differential Equations • Linear Algebra • Multivariable Calculus

### **EXPERIENCE**

# Mobile App Developer Intern at Concur Technologies. Bellevue, WA

Summer 2013

- Collaborated with three other interns to conceive and initiate the development of a prototype application that helps employees share travel advice
- Devised and implemented a 12 column SQLite database and query engine in Java using Android API's
- Programmed and refined the gestures and XML layout of the Android UI, optimizing for user-friendliness

# **Developer** for 3 Day Startup. Ithaca, NY

Fall 2013

- Created a drink-sharing application for Android, collaborating with a web and back-end developer
- Designed and programmed the prototype Android application in two days for a presentation to investors
- Implemented connectivity between our app and website using Parse Push, allowing the app to receive push notifications

#### **PROJECTS**

# Tetris AI Artificial Intelligence

Fall 2013

- Developed an autonomous, Java-coded Tetris player that selected rational moves in real-time
- Optimized move selection using a local search algorithm, helping the player average 1,063 lines per game

## SteamMaku Game Data Structures and Functional Programming

Fall 2013

- Programmed a bullet hell game written in OCaml with a partner
- Designed the game modularly to track the state of the game and communicate with the server and GUI

## Sudoku Puzzle Solver Computing- MATLAB & Robotics

Spring 2012

- Wrote a program in MATLAB that completed a solvable 9x9 Sudoku puzzle represented as a matrix
- Employed a combination of logic and brute force methods to fill in the puzzle in less than 4 seconds

### **OTHER EXPERIENCE**

## House Manager of Phi Gamma Delta. Ithaca, NY

Fall 2012-Summer 2013

- Delegated cleaning responsibilities weekly to over 60 brothers living in the house
- Oversaw house improvement projects and managed the budget, raising over \$1,400

#### **SKILLS**

Java(advanced), C#(proficient), C++(proficient), OCaml(advanced), MATLAB(proficient), Android Development