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## Nathaniel Morihara

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### EDUCATION

**Cornell University**, College of Engineering, Ithaca NY  
Bachelor of Science Degree in Computer Science GPA: 3.16

May 2015

### COURSE WORK

- Computing – MATLAB & Robotics
- Digital Logic & Computer Organization
- Analysis of Algorithms
- Game Architecture
- Entrepreneurship for Engineers
- Multivariable Calculus
- Object-Oriented Programming & Data Structure
- Data Structures & Functional Programming
- Artificial Intelligence
- Embedded Systems
- Discrete Mathematics
- Differential Equations

### 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". Cornell, 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 app and website with Parse Push, allowing 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

### SKILLS

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

### OTHER EXPERIENCE

**House Manager** of Phi Gamma Delta. Ithaca, NY Fall 2012-Summer 2013

- Managed fraternity house, including facility improvement projects and budgets