

# Catherine Morgan

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## EDUCATION

**Vassar College** (class of 2015), graduating December 2014 **Current GPA:** 3.26    **Major:** Computer Science  
**Computer Science Classes:** Computer Science 101 (Racket), Computer Science 102 (Java), Computer Science 203 (Java), Fundamentals of Computer Language (Scheme), Language Theory and Automata, Declarative Programming (Haskell), Computer Organization, Linear Algebra, Game Design, Graphics (C++), Operating Systems, Bioinformatics(Python), Compilers(Java), Independent Project (Player-Avatar relationship, Game Design, JavaScript/C#)  
**Current Semester:** Algorithms, Artificial Intelligence (Lisp), MIT Online Course (C++)

## PROGRAMMING

Coding samples available upon request or you can navigate [here](#) to see some examples

- **Java** - manipulation of data structures such as Arrays, Strings, ArrayLists, Lists, HashMaps, Stacks, Vectors, Enums. Programmed examples: PacMan, Tetris, Dictionary/Spell Checker, Compiler (for subset of Pascal)
- **C#** - Worked with a large code base, optimizing, enhancing and implementing new features to existing code, created Flappy Bird in Unity with procedurally generated obstacles, currently working on a platformer in Unity, programming own character controller, collider system and physics
- **Javascript** - Built an iOS educational video game application and a first-person adventure game in Unity3D
- **Racket/Scheme** - Recursion, tail-end recursion. Built Alien Invader game, input a DNA string that checks to see if it is valid and then prints out a picture of the DNA string if it's correct, string and list manipulations
- **C++** - Created graphic generator, OpenGL/GLUT to program MandelBrot set, simple animations and drawing programs. Worked with large C++ code base, added functionality to internal tools
- **Lisp** - Search algorithms, game solving for chess, recursion, Turing Machine
- **Python** - Implemented dictionaries, regular expression searches and matching for processing DNA information. Worked with large python database, added functionality
- **HTML5/CSS** - editing and creating web content
- **Haskell** - list processing and recursion

Unity3D, Microsoft Visual Studios, GitHub, Adobe Flash Professional CC, Adobe Illustrator, Netbeans, Jira, Git Extensions, Adobe Photoshop, SVN, Microsoft Office, Audacity, GoogleSketchUp, MonoDevelop, PuTTY, Windows/Mac/Linux environments, Terminal, Agile/Scrum, DrRacket, DrScheme, LispWorks

## EMPLOYMENT

**Test Engineer Intern, Battle.net Game Services, Blizzard Entertainment** (May 2014 - August 2014)

- Created testing methodologies and plans
- Implemented new functionality in internal tools and modified existing tools
- Debugged tests and code
- Implemented concurrent testing into the current testing framework. I reduced the runtime of build-verification tests from 10-14 hours to 4-6 hours.
- Used C#, C++, python, and internal tools
- Volunteered numerous times in the QA testing department. I verified various mechanics and content, and reported and tracked bugs, in World of Warcraft: Warlords of Draenor.

**Computer Science Coach, Vassar College** (Jan. 2013-present)

- Tutor students in Java and Racket/Scheme, help students debug code, answer questions, and hold weekly lab sessions and office hours

**Undergraduate Research Summer Institute (URSI), Vassar College** (May 2013 - August 2013)

- Designed and programmed an educational video game app for iOS using Javascript in Unity3D. The basis was to teach robotics, perception and action, critical thinking, and problem solving skills to middle school students. Check out more information [here](#)

## LEADERSHIP

Convention head, No Such Convention (2011- present)

- Organize all vendors, spaces, speakers and staff
- Lead other people to confirm speakers, hotels, events, and bands
- Plan panels, screenings, workshops, competitions, and Live-Action roleplaying games
- Manage, direct, and guide the staff to help make our convention successful. Attendance has increased by 250 people every year that I have worked on the convention

Secretary, No Such Organization (All-around geek club) (2011- 2013), President (May 2013 - present)

- Managed people to do tasks that benefit club and community, as well as communicating to the college
- Scheduled weekly events and spaces
- Recorded meeting minutes
- Lead weekly meetings

Secretary, now Chair, Computer Science Major Committee (Sept. 2013 - present)

- Serve as the bridge between students and faculty
- Ensure the students are learning and understanding the material
- Plan speakers and other events for students to participate in
- Hold lectures for students who need extra help

## EXTRACURRICULAR

Barefoot Monkeys Circus Troupe, Vassar College (2011- present)

No Such Organization, anime/manga/gaming club, secretary and now president (2011- present)

No Such Convention (Vassar College, 2011 - present)

- No Such Convention is a fantasy/anime/gaming convention that the NSO (No Such Organization, aka geek club) organizes every year.

SkiForAll (Sammamish, WA) and AbilityPlus (West Dover, Vermont, 2005-2011)

- Non-profit organizations that assists disabled people to enjoy winter and summer sports. I worked as an instructor.

## AWARDS

Grace Hopper Women in Computer Science Celebration Scholarship Award (2012)

## INTERESTS

Voice acting

Programming and designing my own games

Gaming (video games, board games, RPGs, Live-Action RPG)

Sewing, cosplay, photography, anime/manga

Volleyball