

Professional Experience

Activision Blizzard - Raven Software	Software Engineer	May 2016 -
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- Call of Duty Online Major Mode Gameplay Team
- Create and maintain fresh game modes; Port modes/features from previous CoD titles. (C++, C-like scripting)
- Developed an in-game automated testing tool to assist designers and map builders. (C-like scripting)
- Wrote an onboarding guide/FAQ for new engineering hires to get up to speed quickly.

Flippfly Games	Contract Engineer	Spring 2016
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- Helped port a prototype of Race The Sun to AppleTV. (tvOS, Unity3D, C#)

Activision Blizzard - Raven Software	Software Intern	Summer 2015
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- Call of Duty Online Major Mode Gameplay Team
- Owned an engine internal tool to visualize weapon attachments. (C++)
- Optimized game critical systems and ported features from previous projects. (C++, C-like scripting)
- Developed a variant of the most popular Player Vs. Environment (PvE) game mode. (C-like scripting)

Amazon.com - Amazon Web Services	Software Intern	Summer 2014
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- Architected a "big data" scale metadata gathering and extraction service. (Java, Python, Bash, Javascript)
- Built a pipeline to gather millions of webpages, train, and tune datasets for machine learning analysis.
- Improved data accuracy by up to 300%; Resulted in vastly improved data quality and customer experience.

Mobile Learning Incubator	Software Intern	Summer 2013
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- Open source iOS plant identification platform; Deployed to groups of ~100 students. (Objective-C)
- Worked with a partner to create an open source iOS audio cropper tool from scratch. (Objective-C)
- Integrated two fresh apps into large existing Augmented Reality Game Platform codebase. (Objective-C)

Selected Personal Games & Projects

Monologue@Trainjam	2015
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- Typing game in html5/js with dynamic phrase generation; Built on a 3-day train from Chicago to San Francisco.
- Featured at Game Developers Conference (GDC), Gamejolt, Offworld, and Vsauce3.
- Currently has >90k Plays. Can you beat it? <http://gamejolt.com/games/monologue/56005>

Interactive Dance Environment@BoilerMake 2014	2014
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- Award-winning hands-free "dance-to-code" programming IDE; Translate dance moves to Python!
- Made prototype with two others within 36 hours. (C#, Unity3D, Kinect and Leap Motion APIs)

TextDate@Facebook Midwest Hackathon	2013
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- Program to predict when English novels were written. Used a Naive Bayes Classifier and Google's Ngram set.

Mosh Ball: Computer Graphics Project	2013
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- Arena ball game made with a partner using C++, OpenGL, and Box2d for Physics.
 - Features some Gooch Shaders, Perlin Noise Shaders, and Dynamic Shadows.
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Formal Education

University of Wisconsin - Madison

2016

- **Majors:** Computer Sciences & Linguistics
- **Certificate:** Game Development (Recipient of the first certificate ever to be handed out)
- **Relevant Coursework:** Data Structures, Machine Organization, Operating Systems, Compilers, Algorithms, Artificial Intelligence, Software Eng., Graphics, Virtual Reality, Game Design, Linear Algebra, Crypto., Info. Security

Community Involvement

Undergraduate Projects Lab (UPL) <https://uw-upl.github.io/about.html>

2012 - 2016

- Coordinator in charge of creating events and facilitating student projects to help foster UW's CS community.
- Hosted numerous 50+ person hackathons, puzzlehunts, technical talks, and department sponsored roundtables.
- Mentor beginner hackers (at hacks and online) on new technologies, career opportunities, and how to survive CS.

Badger Game Network (BGN)

2013 - 2016

- Co-founder and overseer of UW - Madison's student organization dedicated to game development.
- Organized a ~100 person game jam with support from major local studios.

Alternative Break

2015

- Fortunate to spend my Winter break in Rabat, Morocco to help local NGOs organize English lessons.

Honors & Awards

Scholarships and Academics

- 2016: UW - Madison Computer Science Department: 'Gold Brick' award for "unsung but critical tasks"
- 2015: International Game Developers Association (IGDA) GDC Scholarship:
1 of 18 scholars selected worldwide to attend the largest Game Developers Conference (GDC).
- 2015: UW - Madison: Dean's List





Hackathons

- 2014: BoilerMake @ Purdue: 2nd place overall out of 400+ hackers.
- 2013: hackMIT @ MIT: 'Best use of Weather Underground' & Boston Globe newspaper feature.
- 2012: facebook Hackathon @ UW - Madison: Honorable mention (Best Game).

Other Competitions

- 2014: NEST Software Competition @ UW - Madison: 2nd place overall & Wisconsin Idea Award
- 2013: Google Games Chicago: 3rd place overall & 1st place in puzzles; Youngest team to compete.
- 2013: NEST Software Competition @ UW - Madison: Winner of Wisconsin Idea Award

Things that excite me:

- Golang • Gardening • git • Outreach • Rabbits • Lego • Linguistics • Puzzles • ProjectEuler • hackernews •
 - Cognitive Science • Music/Raves • Interactive Narrative • Hackathons • Language •  •  •  •  •
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