

Isaac Goodin

Senior Software Engineer

Seasoned Senior Software Engineer with a background in non-profit educational games development, academic research, and business applications. Adept at spearheading projects that bridge diverse disciplines and drive impactful solutions. Highly skilled in performance computing, fostering effective cross-discipline communication, and developing custom tools to optimize workflow.

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SKILLS

Game Dev

Software Dev

Web Dev

Data Oriented Design

C#

Python

Javascript

PHP

Ruby on Rails

C++

Unity3d

Performance Computing

Cross-functional Leadership

CSS

MySQL

MongoDB

Game Design

HTML

WORK EXPERIENCE

Co-Founder / Lead Software Engineer

Clockwork Giant Games LLC.

09/2015 - Present

Madison, WI

Independent game studio with the goal of creating uniquely charming games

- Lead Software Engineer and Game Designer for flagship networked game in Unity. This includes all gameplay programming and an entire suite of bespoke dev tools.
- Researched and developed cutting edge procedural terrain engine technology. Capable of performantly generating ~30 sq. km of game world. Including collision meshes, asset placement, and navigation.
- Oversaw social media marketing growth strategies and promotional content. Generating over 40,000 Steam wishlists with zero marketing spend.
- Coordinated development and project planning for a remote team of 5.
- Managed crowdfunding campaign that successfully raised initial funding through the support of thousands of backers.
- Developed sales pitches and pursued strategic partnerships with publishers and investors.
- Acted as both product manager and creative director to conduct market research, define product vision and provide creative direction.

Senior Software Engineer

Learning Games Network

09/2014 - 10/2015

Madison, WI

Non-profit learning game studio spun out from research labs at MIT and UW-Madison

- Led development of "ADAGE", an analytics standard and web application for data collection and analysis of gameplay data. Developed in Ruby on Rails with MongoDB, with integrations for Unity3d, Flash, and HTML5 in C# and Javascript.
- Developed a companion mobile app for an exhibit at the New York Hall of Science that leveraged gameplay data to identify teachable moments and prompt educators to intervene in real-time.
- Upgraded multiple legacy Unity games to newer versions while implementing data collection in tandem with scientific studies.
- Improved ADAGE standard and technology to support for real-time analysis and visualization of data in custom dashboards.
- Expanded ADAGE web application to support thousands of concurrent players, localization, and cloud saves for a language learning game for MGM Resorts.
- Provided expert consultation for numerous teams on analytics integration and best practices for games and scientific research.
- Maintained legacy web applications and games server hosting.

WORK EXPERIENCE

Software Engineer and Web Developer

Games+Learning+Society

08/2013 - 11/2014

Madison, WI

Educational game research & development center

- Led development of "ADAGE" (an analytics standard and web application for data collection and analysis of gameplay data).
- Aided development on over 10+ games in design, engineering, and analytics integration capacities.
- Developed multiple web applications to distribute games, run playtests, and gather anonymized play data.
- Collaborated with learning scientists to refine analytics standard, improve feature set, and write publications/grant proposals.
- Point person and consultant for ~10 teams of researchers and developers for analytics integration, programming support, data collection. Including teams from UW-Madison, MIT, Princeton, and Wisconsin Institute for Discovery.
- Acted as a bridge between development and research teams to communicate cross domain technical concepts.
- Represented GLS at professional conferences to demo technology, run workshops, and foster business connections.

Business Applications Developer

Extreme Engineering Solutions Inc.

04/2013 - 08/2013

Middleton, WI

Embedded computing solutions for military, commercial, and industrial applications.

- Programmed customer facing web application in Drupal to securely control distribution of product information related files according to ITAR regulations.
- Integrated application to interface with existing product management release pipeline.

Web Application Developer

Illinois State University Student Affairs IT

02/2009 - 05/2012

Normal, IL

- Developed custom PHP based web applications for various school departments.
- Provided support and documentation throughout each project's lifecycle.
- Upgraded and maintained antiquated application systems.

Research Assistant

Intense Laser Physics Theory Unit

2006 - 2010

- Supervised and conducted dozens of physics experiments, leading to 4 peer-reviewed co-authored publications.
- Programmed image processing algorithms for analysis of experimental data in Fortran.

EDUCATION

B.S. Computer Science

Illinois State University

2012

B.S. Computational Physics

Illinois State University

2010

PHYSICS PUBLICATIONS

"Laser beam widening mechanisms in turbid media", Las. Phys. 19, 238 (2009)

"Decomposition based imaging with fiber and ccd camera detections", J. Opt. Health Sci. 1, 115 (2008)

"Limitations of decomposition based imaging of longitudinal absorber configurations", Phys. Rev. A 77, (2008)

"Decomposition based recovery of absorbers in turbid media", Phys. Rev. A 76, 063802 (2007)