

ZACHARY EBERHART

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EDUCATION

M.S., Ph.D. | University of Notre Dame | Notre Dame, IN *2021(M.S), Spring 2022 (Ph.D., Expected)*
Computer Science and Engineering

B.A. | Colorado College | Colorado Springs, CO *Spring 2017*
Major in Chemistry, Minor in Computer Science, *cum laude*

GAME DESIGN/GAME DEV

Mystery Wizard!? | [GMT Games](#) | [MysWiz.Biz](#) | [Project Page](#) *Awaiting Publication*
An asymmetrical strategy board game about spell-slingers and sand-witches (>600 preorders)

- Created game concept and developed unique capture-the-flag-style spell-slinging gameplay
- Designed playable wizard characters each with unique abilities (spells, companions, traps, etc.)
- Created orthogonal questing mechanic to earn equipment and one-time-use spells
- Wrote and edited rulebook, card text, wizard descriptions, and anything else with words
- Directed visual style, creating artwork for the characters, cards, boards, and anything else that is visible
- Ran playtest groups and iterated upon the game's design based on player feedback

Ghost in the Cell | [GhostInTheCell.io](#) | [Project Page](#) *2021*
A cooperative deduction game for the web written in JavaScript and Python

- Created, developed and deployed the game's SPA frontend and Flask backend
- Adapted existing mechanics from the deduction board game "Mysterium" for remote play
- Added feature allowing users to upload custom images to replace suspects and clues

Hearthstone Battlegrounds Tribe Concept | [Project Page](#) *2022*
A custom "Plant Tribe" concept for Blizzard's Hearthstone Battlegrounds digital CCG.

- Developed 17 new minions around a new core mechanic and theme
- Documented design decisions, challenges, and observations about Battlegrounds card design

WORK EXPERIENCE

Research and Teaching Assistant | Univ. of Notre Dame | Notre Dame, IN *2017-Present*

- Researched HCI in the context of virtual assistant technology for software development
- Lead author on 4 research papers published at highly-rated journals/conferences.
- Conducted 6 empirical user studies evaluating experimental text generation tools
- Worked as a Teaching Assistant in 4 undergraduate classes, creating assignments and tutoring students
- Served as VP of Grad. Student Government, organizing social events and managing a \$50,000 budget

IT Technician | Colorado Hi-Tech Solutions | Colorado Springs, CO *2014-2017*

- Performed data entry, reception, and technical support, digitizing over 3 decades of financial records

SKILLS

Programming: Python, Java, JavaScript, Ruby on Rails, React, React Native, Flask, Node.js, Firebase

Other Technical: Photoshop, Premiere, Tabletop Simulator, Godot, Notion, Mac/Linux/Windows

Game Design/Project Management: Playtesting, Experimental Design, Data Collection/Analysis, Writing