

# Zachary Shaffer

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## SUMMARY

Computer science student with experience teaching computer science principles at the college level. Passionate team-oriented worker excited to learn industry techniques to create innovative, best-in-class software. Responsible, self-driven, and a hands-on learner.

## EDUCATION

**ALLEGHENY COLLEGE**  
BACHELOR OF SCIENCE,  
COMPUTER SCIENCE MAJOR  
COMMUNICATION ARTS MINOR  
Expected May 2019

## LINKS & CONTACT

Github:// [shafferz](#)  
LinkedIn:// [shafferz](#)  
Twitter:// [@ShafferzShaffer](#)

## COURSEWORK

Analysis of Algorithms  
Artificial Intelligence  
Computer Organization  
Digital and Screen Cultures  
Operating Systems  
Programming Language Concepts  
Software Engineering

## SKILLS

### PROGRAMMING

Over 2000 lines:

Java •  $\text{\LaTeX}$  • Python

Over 500 lines:

HTML • CSS •

C++

Familiar:

C# • JavaScript

### SOFTWARE

Microsoft Office • Unity  
Engine • Adobe Creative Suite •  
G Suite • Linux OS • Tensorflow

## EXPERIENCE

### LEAD TECHNICIAN: PROPERTY MASTER | THE PLAYSHOP THEATRE

October 2018 – Present

- Frequently work independently with minimal supervision.
- Organize, clean, and maintain the stage prop storage room.
- Work with the technical director, production designer, and stage manager to pull, modify, or build both rehearsal and performance stage props.
- Assist in other areas of the studio as assigned by the technical director or assistant technical director.

### RESIDENT ADVISOR | ALLEGHENY COLLEGE

January 2017 – May 2018

- Received conflict resolution training to develop interpersonal skills, foster a healthy community in the residence halls, operate well during high-stress situations, and solve problems quickly and efficiently.
- Collaborated with other resident advisors and college professional staff members to organize and execute building and campus-wide events.
- Documented incidents of policy violations to ensure the safety and wellness of residents.
- Directed residents to appropriate campus resources when necessary during routine check-ins to help them succeed personally and academically.

### TEACHING ASSISTANT | ALLEGHENY COLLEGE

January 2016 – January 2018

- Helped professors design, grade, and return laboratory assignments for the Introduction to Computer Science I & II courses.
- Held weekly office hours to help students with laboratory assignments, weekly practical assignments, and examination preparations.
- Developed a strong understanding of the principles of object-oriented programming, primarily in the Java programming language.
- Worked with students and colleagues to help them develop a firm understanding of software packages and their associated documentation.
- Trained students to use Git and the GitHub Flow Model to complete software development tasks efficiently.

## PROJECTS

### CASTER 2D | SENIOR THESIS ON VIDEO GAME DEVELOPMENT

September 2018 – Present

- An online turn-based fighting game in which players are wizards, attempting to win spell-casting duels.
- Uses Recurrent Neural Networks to classify drawings received as input from a player, and uses the drawing classifications to construct spells.
- Players take turns responding to each others' spells, having only seen the opponents' drawings to decide which spell to cast next.
- A player wins by reducing an opponents hitpoints to zero, dealing and receiving damage with spells of varied cost and strength.
- Estimated public release date on the Steam platform: May 2019.