

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 2500 lines:
Java • \LaTeX • Python
Over 500 lines:
HTML • CSS •
C++
Familiar:
C# • JavaScript • SQLite3 •
MongoDB • NoSQL

SOFTWARE

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

EXPERIENCE

LEAD TECHNICIAN: PROPERTY MASTER | THE PLAYSHOP THEATRE

September 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

DEVELOPING A MULTIPLAYER VIDEO GAME USING CONVOLUTIONAL NEURAL NETWORKS | UNDERGRADUATE

COMPUTER SCIENCE THESIS

September 2018 – April 2019

- Performed research on convolutional neural networks, video game design, and computer networks.
- Implemented a working prototype of a multiplayer turn-based video game titled Caster 2D in the Python programming language using pygame on the front-end and Keras with TensorFlow on the back-end.
- Successfully built and predicted on a convolutional neural network with over 90% accuracy as a core game mechanic of Caster 2D.
- Currently expanding existing code base to support online multiplayer gameplay.