

Gage Schuster

Computer Scientist

 /StandardGage  gageschu@udel.edu
 Portfolio  /gage-schuster

Education

University of Delaware

Honors B.S. Computer Science

Grand Scholars Program

Alpha Gamma Rho - Financial Chair

August 2021 – May 2025

Work Experience

Web Developer

Sea Grant & University of Delaware

June 2023

Remote

- » Languages/Skills: HTML/CSS, Javascript, SEO Practices, Responsive Design
- » Led the conversion of a company's website from Drupal to WordPress, resulting in a more user-friendly interface and enhanced content management capabilities.
- » Managed and migrated database, ensuring seamless data transfer including blog posts, and multimedia assets from the old Drupal site to the new WordPress platform.
- » Implemented custom WordPress themes and plugins to replicate the existing website's features and functionality, providing an improved user experience and efficient site navigation.

Teaching Assistant

University of Delaware

February 2023 – May 2023

Newark, DE

- » Languages/Skills: Python, C, Shell, Teaching and Instruction, Problem-Solving, Collaboration
- » Assisted in the delivery of computer science coursework, reinforcing key concepts and theories through supplemental lectures, hands-on demonstrations, and personalized tutoring.
- » Provided academic support to students, conducting office hours and review sessions, addressing individual queries, and contributing to students' understanding of complex computer science topics.
- » "Collaborated closely with the professor in planning and implementing lesson plans, grading assignments and exams, and maintaining an engaging and inclusive learning environment.

Undergraduate Researcher

University of Delaware

May 2022 – September 2022

Newark, DE

- » Languages/Skills: Python, C, Shell, Blender, Docker, Machine Learning, Research, Problem-Solving, Collaboration, Communication
- » Conducted in-depth research and created detailed 3D models of microsystems, improving understanding and providing valuable visualization tools for academic study.
- » Collaborated in the development of a machine learning model capable of classifying viral particles, contributing to advancements in virology research and potential disease control methods.
- » Participated in academic meetings and seminars, presenting research findings to the faculty and peers, fostering a collaborative and innovative research environment.

Senior Information Technology Intern

Salesianum High School

May 2021 – September 2022

Wilmington, DE

- » Languages/Skills: Technical Troubleshooting, System Maintenance, IT Support, Training, Network Management
- » Provided technical support and troubleshooting for hardware and software issues across the school, contributing to a smooth and efficient learning environment.
- » Assisted in the maintenance and updates of school's computer systems, ensuring that all machines were up-to-date with the latest software patches and security measures.
- » Aided in the implementation and training of new IT systems and software, helping staff and students to effectively utilize these tools in their daily activities.

Projects

Work: TEMNet

TEMNet

- » Languages/Skills: Python, Docker, Singularity, Git/Github
- » Collaborated on the development of TEMNet, a Convolutional Neural Network (CNN) backbone, designed for viral particle detection from TEM micrographs. This involved the use of technologies such as TensorFlow, Keras, and OpenCV for model definition, training, and inference procedures

- › Developed a Docker container to simplify the deployment and execution of TEMNet, ensuring reproducibility across different computing environments and enhancing the usability of the project for end-users

Work: Capsid Visualizations

[Capsids](#)

- » Languages/Skills: Blender, 3D Modeling, Communication
- › Created detailed and scientifically accurate 3D visualizations of viral capsids to aid in the understanding of virus structure and function.
- › Collaborated closely with research scientists to ensure the accuracy of the visualizations and their applicability to ongoing research.

Work: Scientific Journal Candidates

[Microsystem](#)

- » Languages/Skills: Blender, 3D Modeling, Communication
- › Developed intricate 3D models of a microsystem, providing detailed visual representations to supplement and enhance the comprehension of research findings published in a scientific journal.
- › Translated complex scientific concepts into comprehensive 3D visual models, effectively supporting the interpretation of research data and facilitating its presentation to a diverse readership of the scientific journal.

Academical: Hawaiian Cleanup

[Hawaiian Cleanup](#)

- » Languages/Skills: Javascript/Typescript, Phaser3, Git/Github, Game Design, Collaboration
- › Collaborated in the development of an educational game about cleaning Hawaii using Phaser3 and TypeScript.
- › Managed the GitHub repository, ensuring an organized codebase, facilitating collaboration, and maintaining version control.

Personal: Chirp

[Chirp](#)

- » Languages/Skills: Javascript/Typescript, CSS, HTML, React, Vite, Time Management, Collaboration
- › Collaborated on the development of Chirp, an educational game focused on teaching users about algorithms that uses Firebase to store user login and data.
- › Contributed to a project that won 2nd place in the beginner category at a hackathon, demonstrating ability to work effectively under pressure and within tight deadlines.

Personal: React-RevealHeader

[React-RevealHeader](#)

- » Languages/Skills: Javascript/Typescript, React, npm, Git/Github, Responsive Web Design, Documentation
- › Developed and published the react-revealheader package, a component library that provides a simple and intuitive way to include a responsive header in React applications. The header disappears when scrolling down and reappears when scrolling up, enhancing user experience and interaction
- › Implemented features that prioritize customizability and versatility for the react-revealheader package, including various props such as 'neutralColor', 'upColor', 'throttleAmount', and 'parentRef' for fine-tuning the header's behavior and appearance based on project needs

Personal: Robot's Road

[Robot's Road](#)

- » Languages/Skills: Blender, Substance Painter/Designer, Quixel Mixer, Photoshop
- › Created an animated short that takes place in a winter, and later desert environment for experimenting with adaptability
- › Experimented with animation, physics, and sound design, to create a short animation which tells a simple story.

Personal: House in the Woods

[House in the Woods](#)

- » Languages/Skills: Blender, Substance Painter, Photoshop
- › Created a rendering of a house in woods to experiment with materials.
- › Explored environmental design with use of foliage and backdrop creation.

Skills

Programming Languages Python, Java, C/C++, Typescript/Javascript, GDScript

Software Blender, Docker, Photoshop, Github, Windows, Linux

Web Development React, Astro, Vite, Wordpress, CSS, HTML