

Jake Stringfellow

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EDUCATION

Northeastern University, Boston, MA

Expected Dec 2023

M.S. in Computer Science, GPA: 3.43/4.0

Related courses: Object-Oriented Design, Data Structures & Algorithms, Algorithms, Computer Graphics, Foundations of Computer Science, Foundations of Software Engineering, Computer Vision, Web Development

University of Rhode Island, Kingston, RI

May 2020

B.S. in Animal Science & Technology

TECHNICAL SKILLS

Languages JavaScript, HTML, CSS, Python, C++

Tools & Frameworks React.js, Node.js, Git, OpenCV, OpenGL, VS Code, Figma, Heroku, MongoDB, Netlify

PROJECTS

Filmdom – Movie & TV Review Platform, Javascript, ReactJS, NodeJS, MongoDB

June 2023 – Ongoing

- <https://filmdom.netlify.app/>
- Designed and developed a dynamic web platform for movie and TV show enthusiasts to share and discover reviews, integrating the OMDb API to provide a comprehensive database of films and series for users to review.
- Engineered a real-time review feed, displaying a timeline of user reviews for logged-in members and a collective feed for anonymous visitors.
- Prioritized user experience by implementing responsive design and intuitive user interfaces.

3D Graphics Engine with Real-Time Rendering, C++, OpenGL

October 2022 - December 2022

- Developed a 3D graphics engine with modern graphics programming techniques, including custom shaders and cube-maps, to achieve realistic and high quality visuals.
- Developed geometry processing pipeline allowing addition of vertices, indices, and texture coordinates for the creation of complex 3D models and scenes.
- Implemented camera controls, including mouse-based look functionality and movement controls for user navigation.

Real-Time Sign Language Recognition, Python, OpenCV

January 2023 - April 2023

- Designed, trained, and tested a simple convolutional neural network for the purpose of recognizing and translating sign language numbers in real-time
- Utilized the TensorFlow library and Keras framework to achieve a 92% accuracy on a Sign-MNIST dataset
- Performed image processing on live video frames to achieve sign language recognition and translation from user signs

Ray-Tracing Engine, C++

July 2023 - August 2023

- Developed a ray-tracing application that renders animated 3D scenes, the program simulates light interactions, anti-aliasing, object translations, and rotations.
- Implemented performance tracking metrics to monitor ray-triangle intersections.

Real-Time 2D Object Recognition, C++, OpenCV

March 2023 - March 2023

- Designed functionality to identify an object presented by the user's live video from a set of known object types
- Implemented similarity computation around comparisons using Hu Moments

WORK EXPERIENCE

Ocean State Veterinary Specialists, East Greenwich, RI

August 2020 - August 2021

Veterinary Technician

- Prepared for, assisted with, and performed diagnostic tests such as radiographs, laboratory sample processing, and examinations