Brian Glasheen

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EDUCATION

TEXAS A&M UNIVERSITY, COLLEGE OF ENGINEERING   College Station, TX
Bachelor of Science in Computer Science   August 2021 – December 2024
- GPA: 3.7
- Relevant Courses: Machine Learning, Distributed Systems and Networks, Design and Analysis of Algorithms
- Supporting Skills: Statistics, Differential Equations, Linear Algebra, Computer Architecture
- Specialized Interests: Computational Photography, Computer Graphics, Software Reverse Engineering

WORK EXPERIENCE

Standard Aero   San Antonio, TX
Software Engineering Intern   May 2024 – Present
- Developed and deployed an automation tool for engine induction forms, integrating data from multiple cross functional teams, resulting in a 90% reduction in required manual labor and minimizing data entry errors
- Design and integrate a real-time dashboard to monitor critical aircraft part metrics, facilitating real-time identification of parts with rapidly changing replacement rates, improving inventory management
- Restructure legacy databases, enabling querying for highly specific metrics including order and usage history, alternate part numbers and more, supporting monthly and yearly projections

Texas A&M University College of Engineering   College Station, TX
Peer Teacher   August 2022 – Present
- Assist professors in teaching, grading, and catering to individual needs for engineering coding classes
- Host physics lab for students, presenting briefings on current experiments and overseeing smooth execution
- Cooperate with other peer teachers to manage deadlines and manage multiple classrooms of 100+ students

Online Tutoring
Computer Science and Math Tutor   August 2015 – Present
- Provide virtual tutoring to students, strengthening skills in computer science and mathematics
- Mentor to a team of three programmers in my Discord server, collaborating on software projects to foster teamwork and technical growth, facilitating idea presentations and discussing implementation strategies

PROJECTS

Image Style Transfer Using Convolutional Neural Networks - [View Project](#)
- Implemented a neural style transfer algorithm leveraging the VGG-19 convolutional neural network to merge semantic content of one image with stylistic features of another
- Applied L-BFGS optimization to perform gradient descent, fine-tuning style transfer processes across hundreds of epochs to achieve high-quality results, with image outputs iteratively enhanced over time

Ray Tracer - [View Project](#)
- Built a ray tracer from scratch in C++, creating features such as reflections, refractions, custom mesh files, along with infinite arbitrary rotation, translation, scaling, and shearing
- Introduced multi-threading to optimize rendering performance, significantly reducing processing time and enabling efficient handling of complex scenes

Perlin Noise Map Generator - [View Project](#)
- Implemented Perlin noise algorithms to generate randomized terrain maps and designed a user-friendly GUI with input fields, sliders, and buttons for map customization
- Created a color-mapping system to transform noise values into terrain features and save generated maps as PNG images, enhancing data visualization capabilities

ADDITIONAL

Technical Skills: SQL, PostgreSQL, Power BI, Git, C/C++, Python, Typescript, C#, Bash, Javascript, Linux
Awards: Eagle Scout; Conceptualized and carried out a personal community service project by leading 30+ volunteers in renovating a fishing island at the military installation Camp Mabry in Austin Texas
Extracurriculars: Aggie Competitive Programming Club, Texas A&M Cycling Team, 中文 (HSK2)