

Nathaniel W. Brooks

Software Engineer with a burning passion for computer science beginning at age 10. Inspired by the expanding horizon that new technology presents and motivated by creating projects that I'm proud to share.

www.natewbrooks.com

<https://github.com/natewbrooks>

natewbrooks@gmail.com

443-280-8792

Sykesville, MD 21784

Education

- ❖ **TOWSON UNIVERSITY**
COMPUTER SCIENCE - 3.8 GPA
AUG 2022 - MAY 2026

RELEVANT COURSEWORK:

- DATA STRUCTURES/ALGORITHM ANALYSIS
- SOFTWARE ENGINEERING
- DATA COMMUNICATIONS & NETWORKING
- OBJECT-ORIENTED DESIGN & PROGRAMMING
- OPERATING SYSTEMS
- DATABASE MANAGEMENT SYSTEMS
- COMPUTER GRAPHICS

- ❖ **CARROLL COUNTY CAREER AND TECHNOLOGY CENTER**
CISCO CYBER OPERATIONS - 4.0 GPA
SEP 2021 - MAY 2022

Formalized introduction to the characteristics of cyber-crime, security principles, technologies, and procedures to defend networks. Learned how to use Python to create programs that would interact with the CISCO architecture, and how computer programs are executed.

Work Experience

- ❖ **FORTINET FEDERAL - PRODUCT MANAGEMENT & CLOUD INTERN**
JUN 2025 - AUG 2025

Architected and solely developed a policy compliant full-stack automation platform for FortiGate configuration and isolated network provisioning using Terraform, FastAPI, and Svelte—leading system design, UI/UX implementation, and infrastructure-as-code workflows while self-learning new technologies; gained hands-on experience with vSphere, Fortinet products, and federal compliance frameworks (FedRAMP, ZTNA, SASE, CMMC, NIST).

- ❖ **KITE TECHNOLOGY GROUP - SECURITY & OPERATIONS INTERN**
MAY 2024 - MAY 2025

Manage the NOC board by addressing cybersecurity alerts to ensure network security. Support audits by deploying training campaigns, using M365 tools (Azure, Intune, Entra), and coordinating with clients on device management.

Practical Experience

- ❖ **LINGANORE UNITED METHODIST CHURCH WEBSITE**
SPRING 2025

Solo developer for full-stack church website with a custom admin panel and end-to-end control over the technology stack. Opted against third-party CMS and authentication services in favor of building bespoke systems tailored to exact needs. Currently finished and in the deployment phase. Built with Vite+React, ExpressJS, and MySQL utilizing RESTful APIs.

- ❖ **JOUST - GAME**
SPRING 2025

As one of four academic projects in development during Spring 2025, JOUST is being developed for my Computer Graphics course as a physics-based, pixel-stylized 3D jousting game using Three.js, as my first formal introduction to GLSL shaders and WebGL. The game will feature dynamic camera transitions, a points-based scoring system, and real-time collision mechanics with stylized knight animations.

❖ **CAPTION CREATORS - WEB APPLICATION/GAME**

2024

Semester long project in my Software Engineering course. An online round-based multiplayer game using AI to generate prompts and interact with YouTube API to propagate videos for players to caption. Built with NextJS and MySQL.

❖ **POSITIVE PROFESSIONALS COACHING WEBSITE**

2024 - *positiveprofessionals.net*

First commercial website delivered via CMS (admin panel), with user authentication and emphasis on creating blog/video posts, hosting webinars, and advertising their services. Built with Gatsby (static website with React), and Netlify.

Certifications

❖ **JAVA SE 8 ORACLE CERTIFIED ASSOCIATE**

2023 - 1Z0-808

Gained proficiency in Java by building real-world applications, including object-oriented designs, algorithms, and data structures. This certification demonstrates a deep understanding of Java fundamentals, including exception handling, multithreading, and working with APIs.

Coding Languages

❖ **JAVA**

I fell in love with object-oriented programming during my computer science classes, where Java became my strongest skill due to its consistent focus in the curriculum. This led me to create several applications. My passion for OOP also pushed me to earn an Oracle Certified Associate Java Programmer certification, to further solidify my expertise.

❖ **PYTHON**

I first learned Python at the Career and Technology Center, where I built various tools and applications that deepened my understanding of the language. I have used Python on and off for backend APIs for several years. It is a skill I can pick up quickly and apply effectively.

❖ **REACT | SVELTE | HTML/CSS | JAVASCRIPT**

Built modern, reusable components to create highly interactive frontends, such as a real-time gaming web application, showcasing technical creativity and problem-solving. Developed dynamic, user-friendly web applications, including responsive design for a small coaching website, which improved their online presence.

❖ **TERRAFORM**

Picked up Terraform on the fly and built a dynamic frontend-driven system that generates live Terraform JSON configurations enabling automated infrastructure updates, resource provisioning, and seamless integration with an IaC workflow.

Skills

❖ **ADAPTABILITY**

I've consistently shown the ability to quickly grasp new technologies by building on a strong understanding of fundamentals. In school, I learned the MARIE machine architecture in just one day to prepare for an exam, which I aced. At Kite Technology Group, I quickly adapted to M365 tools like Intune and Entra, along with several other platforms, becoming efficient in managing client devices and completing an average of 250 NOC board tickets per day. I am confident in my ability to effectively learn and contribute to any team or project I'm part of.

❖ **COMMUNICATION**

During my internship at Kite Technology Group, I quickly built strong relationships with my coworkers and clients. I communicated with clients during on-site visits, as I was dependable and approachable. Beyond work, I enjoy meeting new people and building meaningful connections.

❖ **PROBLEM SOLVING**

When faced with programming problems, I'm relentless in finding solutions, often thinking about them non-stop—sometimes skipping meals or staying up until the early morning to see them through to completion. I actively seek out projects where there's a knowledge gap, allowing me to learn and grow while expanding my development toolkit.