Luke Nelson

luke@lukenelson.io | (918) 863-9310 | github.com/luke07758

Education

The University of Texas at Dallas — August 2023 – December 2025
Bachelor of Science in Computer Science — 3.65 GPA

Relevant Coursework:

- Systems Programming in UNIX
- Computer Architecture
- Data Structures and Algorithm Analysis
- Advanced Algorithm Design and Analysis

Tulsa Community College — August 2021 – May 2023
Associate of Science in Computer Information Systems — 3.43 GPA

Relevant Coursework:

- C/C++
- Intro to Data Structures and Algorithms

Projects

Portfolio Website lukenelson.io github.com/luke07758/portfolio-website

- Designed a responsive portfolio website using React and React Router for dynamic content delivery
- Deployed cloud infrastructure using Cloudflare for hosting, DNS management, and security
- Developed serverless API using AWS Lambda to handle form submissions with email validation, rate limiting, and automated response handling
- Integrated Cloudflare security features including WAF protection and Turnstile captcha to safeguard against common web vulnerabilities

Graphing Calculator lukenelson.io/projects/graph github.com/luke07758/graphing-calculator

- Developed an interactive mathematical graphing application using React and HTML Canvas
- Designed a custom recursive descent parser to evaluate mathematical expressions
- Improved performance by over 50% through implementation of web workers and memoization

Development Server

- Configured and maintained a Debian-based development server with SSH and X11 forwarding capabilities
- Implemented Docker containers to simulate AWS Lambda environment for local testing and development
- Established secure remote access through SSH key-based authentication

Skills

Languages: C/C++, Javascript, HTML/CSS, Java, Python, Bash
Frameworks/Software: React, AWS (S3, Lambda, SES), Cloudflare, Node.js, Docker, Git