

Luke Nelson

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Skills

C/C++, React, HTML/CSS, Node.js, Python, Java, Linux/Bash, AWS

Education

B.S. in Computer Science	UT Dallas – Richardson, TX	August 2023 – Present
Expected Graduation: December 2025		3.65 GPA

Relevant Coursework:

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

A.S. in Computer Information Systems	Tulsa Community College – Tulsa, OK	August 2021 – May 2023
Relevant Coursework:		3.43 GPA

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

Projects

Portfolio Website	lukenelson.io	github.com/luke07758/portfolio-website
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- Designed a responsive portfolio website using React and React Router for dynamic content delivery
- Deployed cloud infrastructure using AWS S3 for hosting and Cloudflare for 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
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- 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