

Haile Lakew

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Senior Software Engineer with 8 years of experience specializing in high-traffic e-commerce storefronts and scalable React/Node.js solutions. Expert in **GitHub Actions CI/CD automation**, **custom Webpack builds**, and **web performance optimization** that drive customer engagement. Dedicated mentor and technical lead focused on bridging the gap between engineering and business goals.

Work Experience

The Home Depot

Senior Software Engineer JAN 2018 - MAR 2026

Revenue Growth & Business Impact

- **Architected high-impact Homepage features that generated \$100M+ in revenue (81bps YoY boost), and improved bounce rate by 200bps during peak Black Friday traffic.**
- Engineered performance optimizations that scaled systems to support **9.2M daily visits**, driving a **28% increase in event revenue** and a record **\$336M in total campaign sales**.
- Led **A/B experimentation** for Homepage Hero components, increasing **click-through volume (1.3M to 2.2M)**, and generated **\$82.M in incremental sales**; successfully driving its full transition from proof of concept to a permanent, scalable architecture.
- Developed a **self-service web application** that empowered business partners to deploy event-specific modules via a custom **Content Management System (CMS)**; this directly enabled **\$304M in attributed revenue** (\$294M from Product Information Page Badges and \$10.2M from Digital Endcaps) across 57M visits.

Technical Architecture & Scalability

- **Led a Header refactor to use Apollo GraphQL and a headless CMS (Contentful), improving findability by 22% and scaling the system to support 155M+ annual interactions.**
- Built systems using **custom Webpack and GitHub Actions**, reducing **CI/CD build times by 83%** (30 min to 5 min); engineered **Node.js CSS injection scripts** to decouple styles and prerender HTML, resulting in a **~20% reduction in bundle size**.

Engineering Efficiency & DevOps

- **Ensured a 99.9% site reliability across high traffic systems at an enterprise scale, utilizing New Relic and Blue Triangle to monitor Core Web Vitals (CWV); owned and managed release rollout through our cloud infrastructure on Google Cloud Platform (GCP)**
- Initiated internal tooling and **GitHub Actions** to automate auditing, bundle size impact, and code quality enforcements; achieved a **90% reduction in legacy stylesheets** and significantly accelerated delivery of high-impact features by **optimizing code review cycles**
- Early adopter of **Github Copilot** (2020 Developer Access) and **Agentic Software Development**; championed enterprise adoption by implementing **Model Context Protocol (MCP)** servers to extend AI agent capabilities, accelerating **technical documentation onboarding** and automated testing using **Jest and React Testing Library (RTL)**.

Strategic Leadership & Mentorship

- **Championed engineering excellence by mentoring mid-level and junior developers on design patterns and clean code standards; established a suite of developer tools (Bash/Python) that increased team velocity and enabled engineers to own large-scale projects. Mentored developers who successfully advance to Senior Engineer roles.**
- Created **technical roadmaps** for core storefront applications (Header, Homepage, Product Information Page), translating business goals into actionable Epics and stories; utilized **Jira/Concourse** to manage team velocity and provide high-accuracy delivery estimates.

Projects

Open-Source & Creative Engineering

- **3D Optimization & Asset Pipeline:** Developed an optimization workflow for web based 3D environments, utilizing **Blender (shadow baking/UV unwrapping)** and implementing **Draco compression and WebP** to reduce 3D asset overhead; successfully reducing a **340MB asset to 1.3MB (99% reduction)**, decreasing **TTI (Time to Interactive)** and memory load
- **WebGL & Shader Development:** Engineered a series of high-performance shader demos utilizing **GLSL and OpenGL**; implemented **FBO particles** and **Perlin Noise** algorithms to simulate complex fluid dynamics with peak **Core Web Vitals and 60fps performance**
- **Browser-Based Physics Engine:** Built interactive 2D/3D platformers featuring **custom physics constraints** and real-time user input, focusing on **low-latency browser performance**

Technical Skills

Languages

Javascript (ES6+)

Typescript

HTML5/CSS3 (SCSS/SASS)

Bash

Python

GLSL/OpenGL

Java

Frontend & Graphics

React/React Native

Next.js

Tailwind CSS

Framer Motion

Three.js/React Three Drei

Electron

Architecture & APIs

Apollo GraphQL

REST

Headless CMS

Node.js

Cloud & DevOps

Google Cloud Platform (GCP)

GitHub Actions (CI/CD)

Webpack

Vercel

AI & Efficiency

Model Context Protocol

Agentic Development

Large Language Models

Github Copilot

Performance & Monitoring

New Relic

Blue Triangle

Jest

React Testing Library (RTL)

Education

University of Texas at Dallas

B.S. COMPUTER SCIENCE

Cum Laude

Miscellaneous

Online Pen Testing Labs

Kali Linux Toolkit

Flipper Zero programming

Raspberry Pi Projects

Classic Games Emulation