

Cooper Lockridge

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Education

Kennesaw State University — BS, Mechanical Engineering

Expected May 2027

Experience

Software Engineer Intern, Northstar Mortgage Advisors — Remote/Hybrid

Apr 2025 – Present

- Shipped 413 merged pull requests in a 12-week span across two production Next.js/TypeScript applications — the largest single contributor to the internal platform used daily by ~40 loan officers
- Built a dual-engine mortgage pricing calculator and a reconciliation harness validating every payment and closing-cost line against the loan origination system; root-caused 12 systemic defects to reach 100% reconciliation across a 108-loan production corpus
- Designed and launched a multi-tenant SaaS portal for external homebuilder partners — subdomain tenancy, fail-closed database-level isolation, live rate pricing, e-signature contract pipeline; grew its test suite from 0 to 2,925 in six weeks
- Built a remote MCP server exposing 46 OAuth-authenticated tools with audit logging and rate limiting; refactored the auth layer across 39 routes to accept machine tokens as first-class credentials
- Built the company's "software factory": an AI agent pipeline that takes employee bug reports, reproduces them, writes and tests fixes, and opens pull requests for human review — first six reports produced five merged PRs, four same-day, deploying to production in ~3 minutes

Product Flow Specialist, Best Buy — Hiram, GA

Oct 2022 – Dec 2024

- Organized merchandise flow and implemented new receiving procedures that sped up intake, stocking, and order fulfillment

Projects

Restaurant Time Clock & Payroll Platform — Next.js, TypeScript, Supabase, Vitest

- Co-built and deployed a time-clock and payroll product for a restaurant (real paying client): PIN-entry employee terminal with device enrollment, multi-rate and salaried pay, overtime on combined weekly totals, and byte-deterministic Excel exports matching the payroll processor's 18-column template
- Backed by a 226-test suite with an approve-and-lock invariant; commissioned adversarial AI audits that surfaced ~20 real bugs and fixed 16

Personal Finance Dashboard — React, TypeScript, Vite, Tailwind CSS

- Built a weekly paycheck allocator that splits take-home pay into editable budget envelopes, with a domain model that strictly separates pre-tax and post-tax dollars

AI-Driven SolidWorks Automation — open-source MCP server, VBA

- Took an open-source MCP server connecting SolidWorks to AI agents and extended it for my own workflows: part and sketch modeling, drawing creation with dimensions and section views, template application, batch export
- Drive SolidWorks from Claude through its VBA macro layer, generating macros for repetitive modeling and drawing work

Skills

Web: Next.js 15/16, React 19, TypeScript (strict), Tailwind CSS, Node.js, Bun

Platform: Supabase/PostgreSQL (RLS, migrations), Clerk (OAuth, multi-tenant orgs), Vercel, GitHub Actions, BigQuery, REST/JSON:API

AI tooling: Claude Code and agent orchestration, MCP servers and clients, adversarial AI code review, prompt-injection hardening