

CHARLOTTE, NORTH CAROLINA

Jeffery Hoffman

Senior Software Engineer

Full-stack products · Enterprise integrations · Practical AI

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I build full-stack software for complex workflows, from privacy-request interfaces and enterprise integrations at Transcend to independent financial and policy-research products. My work combines backend reliability, accessible interfaces, and practical AI: structured specifications, deterministic tests, and human review. As a former CTO and lead instructor, I bring experience leading technical work and making complicated systems understandable.

Queen City Cortex LLC

Founder, independent software projects · January 2026-Present

- **FiduciCalc:** Designed and built a planned-giving calculation platform end to end. A legacy C math library was the only inherited component; I built everything else, including the Rust calculation layer, REST API, MCP server for AI assistants, PostgreSQL-backed services, and Leptos/WebAssembly frontend. Added rate synchronization and validation tests against legacy reference results.
- **Medicaid Agent:** Built and deployed a Python/TypeScript policy-research system with document ingestion, a Neo4j knowledge graph, hybrid retrieval, and cited answers. Added verification checks and answer-release gates to check responses before delivery.
- Built golden-dataset evaluations for retrieval, comparing precision, recall, and MRR against a baseline. Evaluated model changes against that baseline and removed a reranker that did not improve retrieval, keeping deterministic scorers rather than added complexity.

Transcend

Software Engineer II · November 2020-July 2026

- Built full-stack privacy workflows and administrative tools, including action-item tracking from data model to UI: React/TypeScript interfaces, Node.js services, GraphQL/REST APIs, relational models, migrations, and automated tests.
- Implemented enterprise integrations for vendors including Adobe Campaign, Slack, BigQuery, and Databricks. Connected authentication and identifier matching to data access, deletion, and preference workflows across OAuth, REST/SOAP APIs, polling, and bulk exports.
- Made long-running integration work resumable with persisted jobs, resumable pagination, and idempotent retries. Added batching and quota controls to respect vendor limits; preserved vendor error details so authentication failures and throttling remained distinguishable.
- Built migration workflows to move privacy-request identifiers into encrypted storage. Used scheduled daemons with bounded batches and per-run limits, tracked encryption state to avoid double encryption, and added indexed lookups.
- Modernized shared React tables and modals; improved accessibility with ARIA semantics, screen-reader feedback, localization, and auditing. Moved large JSON comparisons into a Web Worker to keep work off the browser's main thread.
- Built a shared AI-assisted integration-spec command that reduced drafting from about a day to 20–30 minutes. Maintained team MCP configuration and agent instructions; used structured specs, deterministic replay fixtures, and simplified diffs to support human review.

Trilogy Education Services at UNC Charlotte

Lead Instructor, Full-Stack Web Development Bootcamp · July 2017–November 2020

- Taught more than 300 students across 12 cohorts, covering JavaScript, React, Node.js, Express, SQL, MongoDB, HTML, CSS, and full-stack development practices.
- In 2018, invited to share teaching methods with peer instructors as one of three instructors with the company's top average NPS. The cohort beginning in April 2020 ranked third in student satisfaction across Trilogy's web development bootcamps.

Planned Giving Design Center, LLC

Web Developer (Part Time) · February 2015–July 2017

- Developed Python bindings for a legacy C math library using SWIG and built a Python/Zope/ZODB web frontend.
- Rebuilt Drupal infrastructure on AWS with Redis and Varnish caching, reducing page load time from 8–10 seconds to under 1.5 seconds.

Earlier engineering and technical leadership

Nuance Labs · CTO · January 2007–December 2012

- Rebuilt a ColdFusion marketing application in Ruby on Rails and PostgreSQL, reducing code size by 60%; integrated the Facebook Pages API.

Planned Giving Design Center · CTO · June 2000–May 2007

- Recruited and managed five web developers and an approximately \$500,000 technology budget; advised the board and led a C++-to-Java/J2EE platform modernization.

Going Virtual · Senior Software Engineer · 1998–2000: C++ Tcl/Tk bindings, sample applications, and client feasibility work.

PhilanthroTec · Software Engineer · 1994–1998: Delphi/Object Pascal courseware and Visual C++ porting.

Creative Cybernetics · Senior System Administrator · 1993–1994: ISP administration, shell scripting, and C maintenance.

Selected capabilities

Product engineering: JavaScript/TypeScript, React, Node.js, Python, Rust, PostgreSQL, GraphQL, REST/SOAP, OAuth, WebAssembly.

Engineering practices: Enterprise integrations, asynchronous processing, accessibility, automated testing, retrieval evaluation, MCP servers, AI-assisted development.

Education

Udacity Front-End Developer Nanodegree · 2015

Computer science coursework at UNC Charlotte