

Edwin Thompson

Principal Software Engineer | Solution Architecture & AI Enablement

Enterprise Architecture • Technical Strategy • Solution Architecture • AI-Driven Engineering

Conway, SC • ethompson11@gmail.com • linkedin.com/in/edwinthompson

Professional Summary

Principal Software Engineer with 20 years of experience designing enterprise software across financial services, healthcare, and technology. Known for reducing ambiguity by researching unfamiliar systems, connecting existing capabilities, and translating ideas into practical architectures and well-understood technical solutions.

Consistently drawn to the engineering challenges that don't have obvious answers—researching enterprise ecosystems, simplifying technical decisions, and helping teams establish a clear path from concept to delivery. Whether designing new applications, modernizing existing platforms, or introducing AI into engineering workflows, the focus remains on practical solutions that teams can confidently build and support.

Focused on applying AI to strengthen engineering rather than replace it—capturing architectural knowledge, accelerating technical decision-making, and helping engineering teams build better software with greater confidence.

Professional Experience

Fidelity Investments

Principal Software Engineer

January 2022 – Present

- Lead the technical strategy, architecture, and long-term evolution of a portfolio of more than a dozen enterprise applications supporting millions of Fidelity customers and hundreds of branch associates, providing technical stewardship from concept and implementation through production support and continuous modernization.
- Designed internal AI-assisted engineering tooling that transforms enterprise codebases into reusable architectural knowledge, accelerating onboarding, governance, compliance, and informed technical decision-making across engineering organizations.
- Architected the application layer for an AI-assisted document processing platform, transforming OCR- and LLM-derived document data into validated customer transactions that reduce manual processing and enable immediate resolution of workflows previously delayed by NIGO exceptions.
- Designed the application architecture for Fidelity's MyGreenline task experience, translating enterprise task data into intuitive workflows and domain models that simplify complex financial activities for clients and branch associates.
- Guide architectural direction across enterprise initiatives by translating ambiguous business and technical requirements into scalable technical approaches, evaluating design alternatives, and building consensus around trade-offs, risks, and long-term system evolution.
- Established a secure passwordless authentication model by integrating multiple verification signals, MFA, and authorization services while enforcing appropriate access boundaries throughout the authentication lifecycle for high-value customer transactions.
- Enabled engineering teams to deliver complex solutions by researching enterprise capabilities, producing architectural guidance and sequence diagrams, and introducing practical AI-assisted development practices that accelerated solution design and technical decision-making.

Senior Software Engineer

September 2015 – January 2022

- Designed and delivered enterprise applications spanning Personal Investing, Account Opening, Corporate Actions, Inherited Services, and Branch Technology, building deep expertise across Fidelity's customer and advisor ecosystems.

- Developed scalable application architectures and enterprise integrations using TypeScript, JavaScript, Vue.js, Node.js, REST APIs, and distributed microservices while modernizing legacy capabilities for long-term maintainability.
- Became a trusted technical resource for complex solution design by researching enterprise capabilities, connecting existing systems, and helping teams navigate architectural decisions for new initiatives.

Front-End Engineer (Contract – Eliassen Group)

March 2015 – September 2015

- Developed enterprise applications supporting Fidelity's Inherited Services organization, contributing proof-of-concept initiatives and gaining broad experience across enterprise software delivery and financial services.

Bank of America (Signature Consultants)

Application Developer

- Developed enterprise applications supporting Desktop Deposits Technology while contributing to modernization initiatives and MVC adoption.

Wells Fargo (Strategic Staffing Solutions)

Applications Systems Engineer

- Designed enterprise monitoring and logging capabilities supporting large-scale data management platforms and operational reporting.

Peak 10 (Robert Half Technologies)

Applications Developer

- Developed enterprise business applications and internal tooling utilizing PHP, JavaScript, SQL, and Google Maps integrations.

University of North Carolina at Chapel Hill

Applications Analyst / IT Consultant

- Designed, developed, and supported enterprise applications for research and healthcare organizations while providing long-term operational support.

Pro Data Research

Developer / Web Developer

- Developed healthcare and business software solutions utilizing VB.NET, PHP, SQL Server, and MySQL.

Elon University

Technical Support • Database Administrator • Teaching Assistant

- Provided campus-wide technical support, developed internal applications, administered databases, and taught programming concepts while completing a B.S. in Computer Science. Recipient of the University Member of the Year award.

Technical Skills

AI & Engineering Enablement

GitHub Copilot • Microsoft 365 Copilot • VS Code Copilot • LLM Integration • AI-Assisted Software Development

Enterprise Architecture

Microservices • REST APIs • OpenAPI / Swagger • Architecture Documentation • System Design

Languages & Frameworks

TypeScript • JavaScript • Node.js • NestJS • Vue.js • Java • PHP • SQL

Cloud & Platform

Kubernetes • Docker • Azure Entra ID • GitHub Enterprise • LaunchDarkly • Artifactory

Engineering Delivery

CI/CD • Jenkins • Argo • Playwright • ESLint • Prettier • Code Reviews

Observability & Analytics

Splunk Enterprise • Datadog • SonarQube • Adobe Experience Platform • Snowflake

Security

OAuth2 • JWT

Education

Bachelor of Science in Computer Science — Elon University