

Zac Fermanis
SOLUTIONS Engineer /ARCHITECT

HOLLY SPRINGS, NC

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EDUCATION

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|-------------|---|---------------------|
| 2017 | Boston University | Boston, MA |
| | <ul style="list-style-type: none">▪ MS in Computer Science with Concentrations in Security and AI | |
| 2007 | University of Southern Maine | Portland, ME |
| | <ul style="list-style-type: none">▪ BS in Computer Science, Minors: Mathematics, Economics | |

PROFESSIONAL EXPERIENCE

2017 - Present Solutions Engineer	Remote
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Liberty Mutual - Corporate Functions - Talent and Enterprise Services

- Named Corporate Functions AI champion. Responsible for advising senior leadership and Enterprise Architecture in Corporate AI guidance. Established several best practices, and created several key enablers in the Agentic Coding space. Created several MCP servers to accelerate application development. Established several security related best practices to safeguard Agentic Coding initiatives.
- Responsible for providing architectural support for Talent and Enterprise Services, a Corporate department of **150+** engineers. Architected, designed, and led implementation of an award-winning intranet portal, "Concierge", which centralizes several managerial tasks like Feedback management, Performance Evaluations, and Merit/Pay Administration. Results in **\$5 Million+** of annual savings.
- Authored several high-profile Architectural Strategies, including Fine-Grained Authorization using OPA, Micro-Frontend Architectures, and SuperGraphQL Microservice architectures. Produced several North Star Architecture diagrams and Reference Architectures for the entire department. LeanIX certified practitioner.
- Mentor junior developers and provided guidance to support High Performance Engineering culture. Helped design and build a DEI portal to address internal employee accessibility needs and reduce IT Support call center volume.
- Lead the architecture, design and implementation details of company-wide overhaul of Performance Ecosystem - utilizing a Micro-FrontEnd and Microservices with a SuperGraphQL architecture. Coordinated Cross-Functional "Game-Day" exercises to upskill performance engineering and site reliability practices. Supported the distribution of **37,000+** annual bonus statements in a single day, with an **error rate less than 0.5%** - the largest amount in company history.
- Participated in several corporate-wide Hackathons (3000+ developers), advancing to the finals in 2022.

2016 - Present Chief Technology Officer - CoFounder	Remote
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Elegant Elephant Travel

- Responsible for all technical operations and decisions for regional travel company, Elegant Elephant Travel, resulting in over **\$1M in annual sales**, while maintaining a total **operating cost** of less than **\$5k** per year.
- Designed and created eCommerce website with integration with social media and high SEO scores. <https://elegantelephanttravel.com>. Includes various automated workflows to integrate with TravelJoy.com API and other Travel Portals and CRMs.
- Designed and implemented several automated AI-based workflows, including: Automated Daily Email Summary, Follow-Up detection, "Ask My Inboox" tool, and an Itinerary Validator to ensure typographical, logistical, and geographical correctness of 3rd-party supplied itineraries.

2012 - 2017 | *Principal Software Engineer*

Dover, NH

Liberty Mutual - Enterprise Technology Services – Security Delivery

- Was Lead Developer for IAM Systems, responsible for a portfolio of 5 Enterprise-wide systems and **35** supporting applications. Responsible for Architecture, Design, System Administration, Release Engineering and Software Development for J2EE n-tier applications that serve large populations (**5+ million** customer accounts, **50k** employee accounts)
- Implemented several tools and scripts in order to **reduce release cycle overhead by over 60%**, primarily by scripting several manual processes.
- Refactored several applications to support hot-swappable configuration changes without code changes or application outages.
- Mentored several junior developers and provided architectural support for multiple development squads

2010 - 2012 | *Software Developer*

Dover, NH

Liberty Mutual - Products & Distribution Applications Development

- Worked as a Front-End Developer in LMIT department. Contributed to successful release of an upgrade/refactored Auto Insurance sales enterprise application (GEARS) as jQuery subject matter expert.
- Was the primary developer and designer for high-profile Personal Liability Protection (PLP) sales application. Both projects utilized IBM RAD/RTC.

2005 - 2010 | *Senior Programmer Analyst*

Boston, MA

Citigroup - Applications Development

- Worked as a lead developer in several integration projects – known as Model Office (AIS Portal) to integrate newly acquired Bisy group into Citi infrastructure; upgrading and re-engineering several .NET/ASP projects to comply with Citi's Information Security Standards and business practices. Managing project implementation.
- Was the Lead Developer in several XSP (Swift/FPML) processing projects for CDIL. Successfully implemented the Swift API using JAVA/J2EE code. Was the Subject Matter Expert for CDIL and taught several other developers in a knowledge sharing effort.
- Lead Developer for all of BGI's (Barclays) various trade processing/reporting integrations. Implemented several JAVA/J2EE processes and .NET applications using Swift, MQ, and SQL. Supported over **1 Million transactions per minute** and daily **AUM of over \$5B**.

2000 - 2002 | *Quality Assurance Engineer*

Shrewsbury, MA

Compaq Computer Co. / Hewlett Packard - StorageWorks - SANSOFT

- Worked as a Quality Assurance Engineer for Storage Area Network solution - StorageWorks, a high-available network storage solution. Was responsible for designing, writing, executing, and summarizing network testing scripts and their results.
- Scripts were written for various hardware/OS combinations, including IBM "Shark" and DS4400s, Oracle Solaris, Redhat Linux, and Windows Servers, all connected with Fiber Channel.

PROFICIENT LANGUAGES/PRODUCTS/Frameworks/CONCEPTS

Front End:

- React, Next.js, Vue, Vite Angular
- HTML5/XML/JSP/ASP
- CSS/SASS
- Javascript/Typescript
- jQuery
- Groovy/Grails
- Htmlx

Back End:

- Node
- Java/J2EE
- .NET (C#, VB, J#)
- SQL (pSQL)
- Go
- Rust
- Spring Boot
- Python
- Serverless
- AWS CDK
- Kafka

Concepts:

- Agentic Coding w/ MCP servers & Memory Banks
- Well-Architected Framework
- High Performance Engineering
- Networking/Network Security
- Neural Networks / Artificial Intelligence / Machine Learning / Genetic Algorithms
- C4 Diagramming
- Big Data - Hadoop/Hive
- AWS/Azure/Google Cloud
- OIDC/OAuth2 Flows
- Cloud: AWS, Kubernetes, OCF, Vercel, Google

Utilities:

- NPM/YARN/PNPM
- CVS/SVN/GIY
- Github Actions
- K6 Load Testing
- Bamboo/Bamboo Specs
- Maven/Gradle
- Ab Initio, Informatica (ETL)
- LeanIX
- PowerBI