

A. GEORGE MADI

Birmingham, AL • [LinkedIn](#) • [GitHub](#)

Senior software and security architect with deep experience building distributed systems, high-performance APIs, cloud-native platforms, and AI-enabled applications. Known for modernizing legacy environments, leading complex initiatives end to end, and delivering scalable solutions across enterprise security, storage, product engineering, and applied LLM systems.

WORK EXPERIENCE

Workday | Senior Software Engineer Nov 2024 - Present

- Engineer and enhance highly available distributed storage platforms primarily in Erlang, with supporting Python and automation scripts across production services and internal tooling.
- Design and architect new platform features from concept through delivery, including experiments, proofs of concept, implementation plans, and cross-team technical alignment.
- Build and maintain Jenkins-based CI/CD pipelines, release workflows, and Artifactory deployment processes to improve delivery consistency and operational readiness.
- Partner across engineering, DevOps, and security teams on production support, release activities, on-call operations, Grafana-based observability, and incident follow-through.
- Serve as team security champion and AI champion, performing security audits, promoting secure engineering practices, and helping evaluate practical AI-assisted development workflows.
- Mentor junior engineers and produce clear technical documentation, Confluence pages, and leadership-facing reports that improve knowledge sharing and decision-making.

AT&T Chief Security Office (CSO) | Senior Solution Architect Dec 2008 - Nov 2024

- Architected highly available distributed systems that enabled large-scale parallel processing and improved platform reliability.
- Led backend development for the [AT&T Dynamic Defense system](#), strengthening security operations capabilities.
- Built high-performance REST APIs to support secure, scalable application integration.
- Reduced processing times by 60% by designing and implementing an innovative data indexing system.
- Accelerated large-scale data processing by 12x through distributed data pipelines and parallel compute architectures, improving scalability and throughput.
- Directed migration of multiple applications to Azure Cloud, improving flexibility and modernization readiness.

AT&T Bell Labs | Software Engineer Jan 2007 - Dec 2008

- Built and optimized large-scale backend applications and enterprise prototypes.
- Engineered efficient large-scale data storage solutions to meet demanding performance and reliability requirements.
- Designed clustered systems for high-volume data collection, processing, and analysis.

PROJECTS

[SmartShade Software](#) | Beach Chair Rental System — [Suncoast Beach Service](#)

- Architected and built rental operations software used to manage beach chair and umbrella services across multiple beach locations.

[Poliseer](#) | AI Security Policy Scanner — [Bytewhisper Security](#)

- Led product architecture and development for an AI-powered security policy analysis platform, including a retrieval-augmented generation (RAG) system using local models via Ollama, OpenAI APIs, vector stores, and related semantic retrieval technologies.

[OpenRiak](#) | Distributed, Decentralized Data Storage System — [OpenRiak on GitHub](#)

- Contributed as an open-source maintainer for a distributed decentralized data storage system.

[CIGA](#) | California Insurance Guarantee Association

- Led engineering modernization efforts as engineering manager for a regulated insurance organization.

SKILLS

Languages: Python, JavaScript, TypeScript, Erlang

AI & LLM Systems: GitHub Copilot, Cursor, Claude, OpenAI APIs, Ollama, Retrieval-Augmented Generation (RAG), Vector Stores, Semantic Search, Prompt Engineering, Local LLM Workflows, AI-Assisted Development

Cloud & Platform Engineering: AWS, Azure, Docker, Kubernetes, Linux, Distributed Systems, Microservices

Architecture & Data Systems: API Design, NoSQL, Databases, Scalable Backend Systems, Riak, Redis

Engineering Delivery: Git, Agile, Requirements, Architecture, Testing, Documentation, Troubleshooting

CERTIFICATIONS

CISSP - Certified Information Systems Security Professional

EDUCATION

Georgia Institute of Technology, Atlanta, GA
MS in Computer Science

University of Alabama, Tuscaloosa, AL
BS in Electrical and Computer Engineering

CREDENTIALS

Spoken Languages: English, French, Arabic (Lebanese)

Patents: "Collecting and delivering call data associated with court-ordered traps" United States Patent 7801281 - 2010