# **Matthew L**

Senior Software Engineer | Full-Stack Developer | Cloud Architect

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# **Executive Summary**

Hands-on Senior Software Engineer with 20+ years building mission-critical systems for Fortune 500 companies and high-growth startups. Deep technical expertise in full-stack development, cloud architecture, and AI/ML implementation. Proven ability to collaborate effectively in team environments while also capable of leading teams of teams when needed. Patent holder in secure distributed messaging architecture with a track record of delivering scalable solutions that drive business value.

## **Key Achievements**

* **$300M Exit** - Core contributor at Evident.io (acquired by Palo Alto Networks)
* **$70K Annual Savings** - Optimized AWS infrastructure reducing operational costs
* **100+ Successful Engagements** - Delivered high-value solutions across Finance, Healthcare, Energy, and Government sectors
* **Patent Holder** - Invented a secure distributed messaging architecture
* **DARPA Recognition** - Distinguished technology innovator and leadership alliance member
* **500+ Commits (2024-2025)** - Active development across 68 repositories
* **Zoro E-commerce Platform** - Built microservices handling millions of transactions daily (2025)
* **TSI Infrastructure** - Architected AWS cloud solutions with React/Laravel stack (2024-2025)
* **Pop Secret IVR System** - Developed a Twilio-powered voice AI system for a national campaign (2025)
* **Cogability Platform** - Built intelligent document processing with Vision LLMs (2023-2025)
* **PredictiveHR SaaS** - Created workforce analytics platform with AWS CDK (2021-2023)
* **BetaCom 5G Platform** - Architected real-time network monitoring dashboard (2020-2021)

# **Core Competencies**

## **Software Engineering Excellence**

* **Full-Stack Development:** Expert in React, Node.js, Python, Java/Spring, Go
* **System Architecture:** Designed and built 100+ production systems
* **Code Quality:** Strong advocate for clean code, testing, and best practices
* **Problem Solving:** Complex algorithm design and optimization

## **Team Collaboration & Leadership**

* Thrives in collaborative team environments as an individual contributor
* Strong communicator across technical and non-technical stakeholders
* Mentors junior developers and shares knowledge freely
* When needed, can lead teams of teams (20+ engineers)
* Experience as CTO and Director-level positions when leadership required

## **Technical Expertise**

### **Cloud & Infrastructure**

* **Multi-Cloud Expert:** AWS, Azure, GCP certified implementations
* **DevOps Leadership:** Kubernetes, Terraform, CI/CD pipeline optimization
* **Security Focus:** NIST, SOC2, PCI, HIPAA compliance implementation

### **Development Stack**

* **Languages:** Python, JavaScript/TypeScript, Go, Java/Spring, Scala
* **Frameworks:** React, Node.js, FastAPI, Django, Spring Boot
* **Data & AI:** TensorFlow, PyTorch, Spark, Kafka, BigQuery, Snowflake

# **Education & Professional Development**

* **M.S. & B.S. Computer Science** - University of Colorado
* **Certifications:** Red Hat Certified, Microsoft Certified Professional
* **Continuous Learning:** Advanced studies in Quantum Computing, AI/ML, Cryptography, and Applied Mathematics

# **Recent & Featured Engagements**

**Zoro/Grainger (2024-2025)**

***Senior Software Engineer***

**Impact:** Built critical e-commerce microservices processing millions of daily transactions

* Developed shipment tracking service with 85 commits handling real-time package updates
* Built return service managing complex partial shipment logic (52 commits)
* Implemented FedEx webhook integration with Datadog monitoring (67 commits)
* Created order management APIs supporting high-volume retail operations
* **Tech Stack:** Node.js, Java/Spring Boot, Python, Google Cloud, Microservices

**TSI (2024-2025)**

***Senior Full-Stack Engineer***

**Impact:** Architected cloud infrastructure and full-stack applications

* Designed AWS infrastructure with React/Laravel application stack
* Implemented Kubernetes orchestration for scalable deployments
* Built responsive frontend components with modern React patterns
* Optimized database queries improving response times by 40%
* **Tech Stack:** AWS, React.js, PHP Laravel, Kubernetes, PostgreSQL

**Pop Secret/PopCorners (2025)**

***Senior Software Engineer***

**Impact:** Created national marketing campaign’s technical infrastructure

* Built Twilio-powered IVR system for “Buttery Secrets Hotline”
* Implemented voice recording, storage, and playback features
* Designed 4-option interactive menu with SMS integration
* Deployed serverless architecture on Vercel with AWS S3 storage
* **Tech Stack:** Node.js, Express, Twilio, AWS S3, PostgreSQL, Vercel

**Cogability (2023-2025)**

***Senior Full-Stack Engineer***

**Impact:** Developed intelligent document processing platform for municipal ticket automation

* Built end-to-end full-stack application processing 100K+ PDF documents monthly
* Integrated AWS Textract OCR with Vision LLMs for automated document classification
* Developed React frontend with real-time processing dashboards and admin controls
* Created Python backend APIs handling document ingestion and data extraction workflows
* Implemented authentication, role-based access control, and audit logging
* **Tech Stack:** React, Python, AWS Lambda, Textract, Vision LLMs, DynamoDB, S3

**Shell (2022-2023)**

***Senior Software Engineer***

**Impact:** Built enterprise-scale data analytics platform for energy load forecasting

* Architected microservices platform on AWS EKS/GCP GKE with Kafka event streaming
* Built Python FastAPI async APIs and Django REST services for real-time analytics
* Developed ML models reducing forecasting errors by 30% using TensorFlow and scikit-learn
* Created data pipelines processing 10M+ daily sensor readings with Pandas/NumPy
* Implemented MLflow experiment tracking and Airflow orchestration for model retraining
* Deployed 15+ containerized microservices using Docker and Helm charts
* Collaborated with team of 8 engineers on GitOps workflows and ArgoCD deployments
* **Tech Stack:** Python, FastAPI, Flask, Django, TensorFlow, scikit-learn, Pandas, Kafka, AWS EKS, GCP GKE, ArgoCD, MLflow, Airflow, PostgreSQL, Redis

**PredictiveHR (2021-2023)**

***Senior Full-Stack Engineer***

**Impact:** Built predictive analytics SaaS platform for workforce planning and HR forecasting

* Architected full-stack application with React frontend and Python/TypeScript backend
* Designed AWS CDK infrastructure deploying scalable cloud-native architecture
* Built interactive dashboards visualizing predictive models and workforce analytics
* Implemented Redshift data warehouse with AWS Glue ETL orchestration
* Created AppFlow integrations for seamless SaaS data synchronization (Workday, ADP)
* Developed comprehensive unit testing for Lambda functions achieving 90% coverage
* **Tech Stack:** React, TypeScript, Python, AWS CDK, Lambda, Redshift, Glue, AppFlow

**BetaCom (2020-2021)**

***Lead Full-Stack Engineer***

**Impact:** Architected real-time data visualization platform for 5G network monitoring

* Built high-performance React dashboard displaying real-time network telemetry
* Developed Python FastAPI async backend processing 50M+ events daily
* Implemented WebSocket connections for sub-second live data updates
* Designed Kafka streaming architecture for real-time event processing
* Created PostgreSQL database schema optimized for time-series analytics
* Built responsive UI components with real-time charts and performance metrics
* **Tech Stack:** React, Python, FastAPI (async), Kafka, PostgreSQL, Redis, WebSockets

**Fidelity Labs (2020-2023)**

***Senior Software Engineer***

**Impact:** Developed SOC2-compliant RegTech platform processing millions of transactions

* Architected multi-cloud infrastructure supporting 99.99% uptime SLA
* Implemented BERT-based AI models improving recommendation accuracy by 45%
* Built ReactJS frontend and Java Spring microservices handling 10K+ requests/second
* Key contributor to saifr.ai platform development

**Regis Corporation (2018-2022)**

***Senior Full-Stack Developer***

**Impact:** Built ML-powered document management system increasing client retention by 25%

* Developed ML-powered document classification system using AWS SageMaker
* Created custom Outlook plugin processing 100K+ financial documents monthly
* Built ReactJS portfolio management platform serving 500+ franchisees

**Evident.io (2016-2018)**

***Senior Software Engineer***

**Company Exit: $300 Million to Palo Alto Networks**

* Engineered cloud-native security solutions detecting 1M+ security events daily
* Received “Bug Fix of the Year 2017” award for critical performance improvements
* Reduced AWS operational costs by $70,000 annually through optimization

# **Industry Impact**

## **Sectors Served**

**Financial Services:** Fidelity, Avant Credit, First Data, Blue Cross Blue Shield  
**Energy & Utilities:** Shell, Houston Energy, Sunoco  
**Technology:** Apple, Target, Zebra, TSI  
**Government:** DARPA, USDA  
**Retail & Hospitality:** Pizza Hut, Cabelas, Royal Caribbean  
**Healthcare:** Various HIPAA-compliant implementations

## **Innovation & Research**

* **Patents:** Secure distributed messaging architecture
* **Open Source:** Active contributor to multiple projects
* **R&D:** DARPA resilient cloud architectures using fault-tolerant rough-set grammars
* **Thought Leadership:** Published research in distributed systems and quantum computing

# **Technical Architecture Expertise**

## **Enterprise Solutions**

* High-Performance Computing (HPC) implementations
* Microservices and event-driven architectures
* Distributed Service-Oriented Architectures (DSOA)
* Real-time data processing pipelines
* Consensus algorithm design and implementation

## **Operational Excellence**

* Infrastructure as Code (IaC) automation
* Container orchestration and service mesh
* Performance optimization and capacity planning
* Disaster recovery and business continuity
* Security auditing and penetration testing

# **Value Proposition**

I bring deep technical expertise and strong collaborative skills to build exceptional software. My approach focuses on:

* **Engineering Excellence** - Writing clean, maintainable, well-tested code
* **Technical Innovation** - Implementing cutting-edge solutions with practical applications
* **Collaborative Development** - Working effectively in agile teams and pair programming
* **System Optimization** - Building performant, scalable architectures
* **Knowledge Sharing** - Mentoring teammates and documenting solutions

# **Ready to Build Something Amazing Together?**

Let’s discuss how my engineering expertise can contribute to your team’s success and help deliver exceptional software solutions.

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*References and detailed project portfolios available upon request*