AMIN PARVA

Senior Software Architect & AI/Data Engineer

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PROFESSIONAL SUMMARY

Senior Software Architect and AI/Data Engineer with 15+ years of experience designing and implementing enterprise-scale systems, machine learning pipelines, and data processing solutions. Currently specializing in athlete performance analytics, predictive modeling, and real-time data processing at Athlete Management Technologies. **Expert in data trimming, pattern recognition, and advanced analytics** with deep expertise in software architecture, AI/ML implementation, and data engineering. Proven track record of architecting scalable systems, optimizing data processing workflows, and delivering high-performance solutions across healthcare, sports technology, and enterprise domains.

CORE TECHNICAL COMPETENCIES

Software Architecture & Design	Microservices Architecture, System Design, API Design, Database Design, Cloud Architecture, Scalable Systems, Performance Optimization, Security Architecture, Event-Driven Architecture, Domain-Driven Design
AI/ML & Data Engineering	Machine Learning Pipeline Design, Data Processing, Pattern Recognition, Predictive Analytics, Neural Networks, Deep Learning, TensorFlow, PyTorch, Scikit-learn, MLOps, Data Pipeline Architecture, Real-time Data Processing
Programming & Development	Python (Pandas, NumPy, SciPy, Matplotlib, Seaborn), C#, .NET Core, JavaScript, TypeScript, SQL, R, Scala, Go, Rust, Java, C++, VB.NET, HTML5, CSS3, SASS
Data Technologies & Tools	Apache Spark, Apache Kafka, Apache Airflow, Apache Hadoop, Apache Flink, Apache Beam, Apache NiFi, Apache Superset, Jupyter, Apache Zeppelin, Apache Druid, ClickHouse, Apache Pinot
Cloud & Infrastructure	AWS (SageMaker, EMR, Glue, Kinesis, Lambda, S3, RDS, Redshift, DynamoDB), Azure (Synapse, Data Factory, ML Studio), GCP (BigQuery, Dataflow, AI Platform), Docker, Kubernetes, Terraform, Ansible
Databases & Storage	PostgreSQL, MySQL, Oracle, SQL Server, MongoDB, Cassandra, Redis, Elasticsearch, InfluxDB, TimescaleDB, Apache HBase, Apache Hive, Apache Impala, Snowflake, BigQuery

PROFESSIONAL EXPERIENCE

AI/ML Engineer & Data Architect | Athlete Management Technologies | Feb 2025 - Present

Designing and implementing AI/ML systems and data processing pipelines for athlete performance analytics
• Architected and implemented enterprise-scale ML pipeline processing 10TB+ of sensor data daily, serving 10,000+ athletes with 99.9% uptime
• Developed advanced data trimming algorithms and pattern recognition models using Python, TensorFlow, and scikit-learn, improving data quality by 95%
• Designed real-time data processing system using Apache Kafka and Apache Spark, reducing data processing latency from 5 minutes to 30 seconds
• Implemented automated feature engineering pipeline with 200+ engineered features for movement pattern analysis and performance prediction

• Built scalable data architecture using AWS SageMaker, S3, and EMR, handling 50M+ data points per day with sub-second query response times
• Created comprehensive data validation and quality monitoring system using Apache Airflow and custom Python scripts, reducing data errors by 90%
• Designed and implemented MLOps pipeline with automated model training, validation, and deployment using Docker and Kubernetes

Senior Software Architect & Technical Lead | Antech Diagnostics (Mars Inc.) | Oct 2015 - Nov 2024

Architecting enterprise healthcare systems and leading technical implementation across multiple large-scale projects
• Architected and implemented 15+ enterprise-scale healthcare systems serving 5,000+ clients, processing 100M+ lab results annually
• Designed microservices architecture using .NET Core, Docker, and Kubernetes, improving system scalability by 300% and reducing deployment time by 80%
• Led technical implementation of HL7 integration system, processing 1M+ messages daily with 99.99% reliability and sub-second response times
• Architected data warehouse solution using Oracle and SQL Server, optimizing query performance by 500% through advanced indexing and partitioning
• Implemented real-time data processing pipeline using Apache Kafka and .NET Core, reducing data processing time from hours to minutes
• Designed and developed RESTful APIs and GraphQL endpoints, serving 10,000+ concurrent users with 99.9% availability
• Led technical migration from legacy MUMPS/Cache systems to modern .NET architecture, improving system performance by 400%

Software Architect & Senior Engineer | Technijian | Jan 2015 - Oct 2015

Designing and implementing enterprise software solutions and leading technical architecture decisions
• Architected n-tier enterprise software platform using ASP.NET MVC, Entity Framework, and SQL Server, serving 10,000+ users with 99.9% uptime
• Designed and implemented comprehensive security framework with OAuth 2.0, JWT tokens, and role-based access control, achieving SOC 2 compliance
• Developed real-time data synchronization system using SignalR and WebSockets, enabling real-time updates across distributed systems
• Architected API gateway solution using .NET Core and Ocelot, managing 50+ microservices with rate limiting and authentication
• Implemented advanced caching strategies using Redis and in-memory caching, improving application performance by 200%
• Designed and developed responsive web applications using AngularJS, jQuery, and Bootstrap, ensuring cross-browser compatibility

Technical Director & Lead Developer | ParvaGroup | July 2008 - Nov 2014

Leading technical development and architecting web-based solutions for enterprise clients
• Architected and developed 75+ web applications using ASP.NET, C#, SQL Server, and JavaScript, serving 25+ enterprise clients
• Designed scalable database schemas and optimized SQL queries, improving application performance by 300% and reducing load times by 60%
• Implemented comprehensive testing framework using NUnit and Selenium, achieving 95% code coverage and reducing bugs by 80%
• Developed custom CMS solution using .NET and SQL Server, enabling clients to manage content with 99.9% uptime
• Architected multi-tenant SaaS platform with role-based access control and automated provisioning, serving 500+ users

• Led technical team of 8 developers, implementing agile methodologies and establishing coding standards and best practices

KEY TECHNICAL PROJECTS

Athlete Performance Analytics Platform | Athlete Management Technologies | 2025

Technologies: Python, TensorFlow, Apache Spark, Apache Kafka, AWS SageMaker, Docker, Kubernetes, PostgreSQL, Redis
Architecture: Microservices-based real-time data processing platform with ML pipeline for athlete performance prediction
Key Contributions: Designed and implemented end-to-end data pipeline processing 10TB+ daily sensor data, developed advanced pattern recognition algorithms, and built scalable ML infrastructure serving 10,000+ athletes with 99.9% uptime.

Healthcare Data Integration Platform | Antech Diagnostics | 2020-2024

Technologies: .NET Core, Apache Kafka, Oracle, SQL Server, Docker, Kubernetes, Redis, Elasticsearch
Architecture: Event-driven microservices architecture with real-time data processing and HL7 integration
Key Contributions: Architected and implemented enterprise-scale healthcare data platform processing 100M+ lab results annually, designed real-time data streaming pipeline, and led technical migration from legacy systems to modern architecture.

Enterprise Client Portal Platform | Technijian | 2015

Technologies: ASP.NET MVC, Entity Framework, SQL Server, AngularJS, SignalR, Redis, OAuth 2.0
Architecture: N-tier enterprise application with real-time features and comprehensive security framework
Key Contributions: Designed and developed enterprise portal platform serving 10,000+ users, implemented real-time data synchronization, and architected comprehensive security framework achieving SOC 2 compliance.

CERTIFICATIONS

• Scrum Master | LinkedIn Learning | 2024
• Leadership Fundamentals | LinkedIn Learning | 2024
• Management in Organization | LinkedIn Learning | 2024
• Advanced C# | LinkedIn Learning | 2024

AWARDS

■ **Antech Tax Benefits Reward** for High Performance Employees | 2024

EDUCATION

Bachelor of Science in Electrical Engineering
Azad University, Bushehr, Iran | 2003 - 2008

ADDITIONAL INFORMATION

• Languages: English (Fluent), Persian (Native)
• Work Authorization: US Citizen

• Availability: Open to relocation and remote work
• Specializations: Data Engineering, Machine Learning, Software Architecture, Real-time Data Processing, Pattern Recognition