

RONEL ZAPATA

Senior Software Engineer

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SUMMARY

Senior Software Engineer with 14+ years of experience architecting scalable, high-performance systems in healthcare technology and energy sectors. Expert in full-stack development using Python/Django and C#/.NET with proven history building ETL pipelines processing millions of records, RESTful APIs, and cloud-native solutions on AWS.

Core competencies include DDD, HIPAA-compliant healthcare interoperability using X12 EDI, IaC, and microservices architecture. Achieved 100% integration health scores for provider data with zero data quality incidents processing millions of records monthly.

AWS Certified Developer (3 active certifications) with expertise in serverless computing, container orchestration, database optimization, and AI/ML integration using OpenAI GPT-4o.

EXPERIENCE

Software Engineer

Cedar Cares, Inc. | New York, NY

Apr 2022 – Jan 2026

Core Technologies: Python, Django ORM, PostgreSQL, AWS (S3, Fargate, ECS), Snowflake, Terraform, Apache Airflow

- Achieved and maintained 100% Integration Health Score with zero data quality incidents as lead engineer for company's largest client partnership, processing millions of records monthly using Python and Django ORM.
- Architected ETL pipelines processing enterprise data at scale using Django ORM, handling millions of records daily with 99.8% pipeline reliability.
- Refactored balance detection tool using Data Access Layer patterns (Models, Entities, Factories, Dependency Injection) enabling on-demand financial reconciliation for Real-Time Balance Pull integration.
- Reduced deployment complexity by 75% by leading integration refactoring to manifest-based configuration, cutting time-to-market from 6 months to 4 weeks per integration.
- Engineered secure isolated test environments replicating production systems for ETL validation with automated data masking, preventing production incidents.
- Debugged complex data processing issues using Snowflake across millions of records, identifying and resolving root causes to maintain pipeline reliability.

Software Engineer III → Senior Software Engineer

Dental Link Exchange | Orlando, FL (Part-Time)

Sep 2023 – Present

Core Technologies: C# (.NET Core, ASP.NET Core), Python, AWS (Lambda, API Gateway, RDS Aurora, S3, Cognito, SQS), React, Redux, Entity Framework Core, OpenAI GPT-4o

- Architected data interchange workflow engine processing 900+ transaction files in under 5 minutes using C# (.NET Core) with multi-threaded parallel execution, achieving 50x improvement over legacy system with 99.9% accuracy.
- Led migration to DDD with vertical slice architecture, CQRS pattern using Entity Framework Core, reducing deployment errors by 40%.
- Reduced manual review workload by 70% through ML-powered scoring system with three predictive models (risk prediction, forecasting, timeline estimation) processing thousands of transactions daily.
- Implemented IaC using Serverless Framework, automating AWS Lambda, API Gateway, RDS, and S3 provisioning with CI/CD pipelines, reducing deployment time from 4 hours to 15 minutes.

- Built event-driven file processing pipeline using S3 notifications, Lambda, and SQS with duplicate prevention, processing 10,000+ files monthly.
- Architected AI integration layer with OpenAI GPT-4o using official .NET SDK, with AWS Secrets Manager for secure API key storage and rotation.
- Enabled multi-tenant scalability across 200+ client organizations with multi-database support (MySQL, MariaDB) and financial data type migrations (FLOAT to DECIMAL).
- Built React/Redux dashboards with interactive reports, KPI visualizations, and JWT authentication using PrimeReact components.
- Implemented AES-256 encryption and comprehensive audit logging across AWS infrastructure with automated compliance monitoring.

Senior Full Stack .NET Developer

OVS Group, LLC. | Houston, TX

Jul 2018 – Apr 2022

Core Technologies: C#, MS SQL Server, AngularJS

- Led full SDLC for three enterprise projects (Sentinel Peak, Total E&P, Halliburton US) delivering Production Analytics applications with Decline Curve Analysis and ESP optimization for oil and gas operations.
- Reduced deployment time by 50% weekly by streamlining CI/CD pipeline through Bitbucket and JIRA automation.
- Enhanced application stability by resolving 150+ defects through systematic debugging and TDD practices.
- Improved long-running report performance by 60% through T-SQL query optimization using SQL Server Profiler and Index Tuning Wizard for queries processing millions of production records.

.NET Developer

OVS Group de México | Villahermosa, México

Jun 2011 – Jul 2018

- Delivered custom software solutions as on-site technical consultant at Petróleos Mexicanos (Pemex), supporting petroleum engineering production and data analysis workflows.
- Improved database performance by executing enterprise migration from Oracle to SQL Server, transforming PL/SQL procedures to T-SQL stored procedures while maintaining 100% functional parity.
- Mentored junior developers in coding standards, debugging techniques, and best practices while achieving multiple Microsoft certifications.

TECHNICAL SKILLS

Languages

C# (11+ years), Python (3½ years), JavaScript/Node.js, ANSI-SQL, T-SQL, PL/SQL

Frameworks & Libraries

.NET Framework, .NET Core, ASP.NET Core, Entity Framework Core, Django, Django ORM, React, Redux, AngularJS, PrimeReact UI Components, Web SPA, Serverless Framework, Quartz.NET

Cloud & DevOps (AWS Certified – 3 Active Certifications)

AWS (Lambda, RDS Aurora, S3, API Gateway, Fargate, ECS, SQS, Cognito, CloudFormation, IAM, KMS, Secrets Manager, CloudWatch, VPC, Route 53) • IaC (Terraform, Serverless Framework, AWS CDK), CI/CD (AWS CodePipeline, AWS CodeBuild, AWS CodeDeploy, GitHub Actions), Docker, Git, Bitbucket Pipelines

Databases

PostgreSQL, MySQL 5.5 to 8.0, MariaDB, SQL Server 2005-2022, Oracle 8i to 12c, Snowflake • ETL Pipelines, Query Optimization, Data Modeling, Database Replication

Architecture & Patterns

DDD, CQRS, Microservices, Event-Driven Architecture, RESTful APIs, Multi-Tenant Systems, Serverless Computing

Integration & Security

X12 EDI, HIPAA Compliance, AES-256 Encryption, OAuth 2.0, JWT, B2B Integration, Payment Processing, Transaction Reconciliation

AI/ML

OpenAI GPT-4o, LLM Integration, ML Model Development, Predictive Analytics, Risk Scoring.

CERTIFICATIONS

Amazon Web Services (AWS)

- AWS Certified Developer – Associate (Valid through Sep 2026)
- AWS Certified Solutions Architect – Associate (Valid through Jun 2026)
- AWS Certified Cloud Practitioner (Valid through Mar 2026)

Microsoft Certified Professional (MCP)

- MCSE: Data Management and Analytics - Microsoft SQL Server
- MCSA: SQL Server 2012/2014 - Database Development & Administration

EDUCATION

Bachelor of Science (B.S.) in Computer Engineering

Universidad de Oriente, Venezuela

Graduated: 2009