

John R. Molina

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Technical Skills

Backend: Python, Django, Flask, Django Rest Framework, Redis, HTMX, Ruby, REST APIs, Microservices, Database Design, API Gateway
Frontend: React, vanilla JavaScript, HTML5, CSS3, Tailwind CSS, Bootstrap, Responsive Design, Material UI, Web Components
Testing: Pytest, RSpec, Capybara, Unit Testing, Integration Testing, Test-Driven Development
Data Visualization: Tableau, Power BI, Matplotlib, Seaborn, Jupyter
Database Systems: SQL, NoSQL, Vector, MySQL, PostgreSQL, SQLite3, PL/SQL, Database Optimization, Database Replication & Sharding
Programming & Tools: Python, C/C++, PHP, Java, SQL, Markdown, Shell Scripting, Git
Big Data & Cloud: AWS EC2, Docker, Data Lakes, Distributed Systems, Cloud Computing
Data Quality & Security: Data Validation & Governance, SSL/TLS, Access Control, Data Integrity, Performance Optimization
Methodologies: Agile/Scrum Development, Waterfall Model, Code Review Practices

Projects

johndev.io

Jan. 2024 - Present

A personal blog and portfolio site

- Developing a full-stack web application using Django, React, and vanilla JavaScript, hosted on an Ubuntu droplet, to manage and showcase dynamic content.
- Architecting a scalable SQL-based database (SQLite3) integrated with a REST API to enable efficient CRUD operations.
- Designing and implementing a responsive, mobile-first front end using React and Tailwind CSS for optimal user experience.
- Leading the migration from pymemcache to Django-redis for improved caching efficiency and scalability. Enhancing knowledge of Redis capabilities through hands-on C/C++ implementation.
- Implemented advanced security measures, including CAPTCHA, rate limiting, and SSL/TLS configurations, to ensure data integrity.
- Automate deployments with GitHub CI/CD pipelines and leverage Docker and Nginx for containerization and performance optimization.

Experience

Development Assistant

Dec. 2017 – Aug. 2022

Columbia University, Office of Alumni & Development Data Management Group

New York, NY

- Architected and maintained complex ETL pipelines processing 1M+ constituent records between Oracle database, Athena fundraising platform, and Salesforce API, achieving 99.9% data delivery reliability in an Agile environment
- Designed and implemented automated and manual data quality frameworks, increasing verified constituent records from 75% to 98% through systematic validation and cleansing processes in Kanban project management
- Engineered scalable data integration solutions that supported \$5B annual fundraising targets and drove a 156% increase in alumni participation through optimized data flows
- Developed robust data verification workflows using LexisNexis and Initium, implementing automated matching algorithms that reduced manual review time by 70%
- Monitored and tested a real-time data synchronization system between Oracle, Athena, and Salesforce, reducing data latency from 24 hours to under 5 minutes
- Led technical implementation of data governance policies, reducing data inconsistencies by 85% and ensuring GDPR compliance

Data Coordinator

Aug. 2017 – Dec. 2017

Columbia University, Office of Alumni & Development Data Management Group

New York, NY

- Developed automated ETL processes for Oracle database and Athena, processing 50,000+ daily records with 99.8% accuracy
- Implemented data quality monitoring system with automated alerts, reducing error detection time by 60%
- Created data validation framework using Python and SQL to enforce data integrity policies across multiple databases.
- Optimized database queries and indexing strategies, improving query performance by 40% across major workflows.

Donor & Database Relations Associate

Feb. 2016 – Aug. 2017

Parkinson's Foundation

New York, NY

- Engineered data pipeline in Raiser's Edge database, implementing automated quality control measures that reduced data redundancy by 35%
- Developed an automated batch processing system for donation data, increasing processing efficiency by 75% and reducing manual errors in the Waterfall environment.
- Created data integration workflows between multiple systems, ensuring seamless data flow for fundraising operations.

Education

Montclair State University

Montclair, NJ

Bachelor of Science in Computer Science

Hudson County Community College

Jersey City, NJ

Associate of Science in Computer Science