**Jovan Andrei Tapia Valenzuela**

Computer Systems Engineer

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| --- | --- |
| Work Authorization (Sponshorship) | H1B (Signature Consultants) |
| Current Location: | McLean, VA |
| Available to be onsite (Yes / No): | Yes |
| Interested in Contract-to-hire opportunities (Yes / No): | Yes |
| Interested in Direct Hire opportunities (Yes/No): | Yes |

**Portfolio:** [**https://jovandrei.github.io/**](https://jovandrei.github.io/)

**Professional Summary:**

I have experience in Video Analysis, Machine Learning, System Architecture, Database Management, Linux Servers, Classification Algorithms.

I’m a full stack developer and architect with proficiency in coding for Java, Python, MongoDB, Oracle, Angular, Selenium, Bash Scripting.

Ample experience in Amazon Web Services (AWS) technologies including S3, EC2, ELB, VPC and microservices deployment.

**Skills:**

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| --- | --- |
| Category | Technologies |
| Programming Languages | Java, Python, C |
| Web Technologies | HTML, CSS, JavaScript, Angular, jQuery |
| Database Management | Oracle, Sybase, MongoDB, MySQL |
| Cloud Services | AWS (EC2, S3, Lambda, VPC) |
| DevOps Tools | Jenkins, Ansible, Puppet, Chef, GIT |
| Frameworks | Spring, Hibernate |
| Other Skills | REST APIs, JSON, SOAP, Machine Learning, Computer Vision |

**Education:**

**M.S. Computer Science** - Monterrey Institute of Technology and Higher Education (2023 - 2025)

Specializations in Artificial Intelligence and Computer Graphics. Research focus on machine learning applications in computer vision.

**B.S. Computer Science** - Monterrey Institute of Technology and Higher Education (2007 - 2012)

Concentration in Artificial Intelligence, Computer Graphics, and Bioinformatics. Gained foundational and advanced knowledge crucial for tackling complex computing problems.

**Certification:**

**Sun Certiﬁed Programmer** for Java 6 Sun Microsystems from Oracle in 2011

**Professional Experience:**

#### BANK OF AMERICA, SOFTWARE ARCHITECT DEVELOPER TECH LEAD (JUNE 2022 – PRESENT)

Led the transformation of the ETS Fraud Sanctions application to achieve near 24/7 availability. Designed and implemented robust solutions using Java, Python, and Angular15, enhancing system reliability and performance. This involved reconfiguration of the MQ, database setup, middleware Apache and tomcat configuration, front-end and back-end testing, golden gate setup, rewriting store procedures.

Achievements include:

* Led a cross-functional team of 4 across the U.S. and India, integrating 100+ Red Hat Servers.
* Reconfigured MQ database and middleware setup, optimizing Apache and Tomcat configurations.
* Fully developed and deployed a full-stack web platform using Angular 15 and SpringBoot for real-time data visualization and management.
* Implemented secure and scalable JSON-based communication protocols across MQ channels.
* Enhanced system security by integrating Single Sign-On (SSO) capabilities into Apache servers bigip.
* Designed and executed Python scripts for delta analysis in graph visualization, improving data analytics capabilities.
* Customized Oracle DB stored procedures with sum hash for verification and Bash scripts for data sanitization, ensuring data integrity and compliance.
* Optimized the golden gate setup with parallel procedures to ensure optimal performance.
* Implemented TypeScript services for communication with SpringBoot API back-end and automated data processes with Python scripts.
* Utilized Ansible yaml playbooks for dynamic file deployment across environments.
* Bash scripting awk deployment for pattern consolidation of logs.
* Java JMS queues priority enablement for connections order.
* Partitioned tables to improve performance based on date index columns.
* Meeting coordination among multidisciplinary teams such as MQ, Architects, DBA, Engineering, Middleware, L2 and business units.
* Configured Fircosoft scripts to adapt to business needs.
* Transformed data between datasets for normalization purposes using sql and bash.

#### FREDDIE MAC, SOFTWARE DEVELOPER TECHNICAL LEAD (JUN 2016 – JUNE 2022)

Technical lead for Loan Product Advisor, facilitating seamless interaction among technical and business teams. Employed advanced technologies and methodologies to improve system functionalities and user experience.

Achievements include:

* Led enhancements for the Loan Product Advisor, fostering integration across technical and business units.
* Coordinated multidisciplinary teams for efficient operation and troubleshooting, contributing significantly to system optimizations and user experience enhancements.
* Implemented Singleton configuration across microservices to maintain data consistency and integrity across platforms.
* Wrote multiple types of SQL queries to generate reports based on the data coming from hundreds of thousands of transactions as per business request. Used Sybase and Mongo Db.
* Generated new tests for synthetic transactions using bash scripting.
* Designed a serverless web app using AWS Lambda with API calls for cost-effective, scalable solutions..
* Authenticated apps with Apigee API proxies and OAuth tokens.
* Managed AMI/Snapshots/Volumes as well as upgrades on AWS resources.
* Wrote python scripts to manage Aws resources using the SDK Retrieval of data stored in S3 buckets.
* Familiar with ec2, Cloud Watch and IAM, Subnets, Internet gateway, NAT.
* Created multiple tools to enhance the production support of our monitoring team through an Angular10 based interface. Received an award for the same.
* Executed more than 10 DCUs per quarter for database related issues.
* Trained more than 10 new resources for over 40 hours each.
* Coordinated with development team to create, push, and deploy Jil files for new servers using Git repositories.
* Worked with Operations team to update the credit score matrices used to display messages on customer’s feedback XML.
* Provided Software Partner Integration Director information regarding users’ usage through Splunk querying.
* Provided reports, analysis, and fixes to business for failed transactions.
* Managed developing and monitoring support for 4 applications.
* Worked with Market Loan teams to fix variances in data due to reprocessing job.
* Used AWS microservices in OpenShift clusters.
* Exposure to AutoML tools like dataRobot. Worked with Data Science team and provided them with the necessary features for their supervised model for monitoring purposes.

#### University of California, Los Angeles, Mexico City, Researcher (JUNE 2012 – jUN 2016)

ITESM CEM gave our team access to internal cameras from the campus. We developed an API which allowed other researchers to have a building blocks approach in the creation of a video surveillance system. Also, as part of my research I was investigating patterns in people’s movements, attempting to recognize and classify anomalous events. Achievements include:

* Collected data from a real time stream and compared it with a historical log.
* Utilized supervised learning techniques to categorize movements, integrating Python-based frameworks with internal project repositories.
* Designed a framework based on Python which made use of a local internal repository containing multiple projects developed by fellow PhD colleagues.
* Collaborated on bird songs analysis, creating databases and interfaces for data input and pattern recognition using Java, jQuery, MySQL, and PHP
* Developed an interface which allowed researchers to input new data in a controlled way.
* Used pattern recognition methods which allowed me to find information in the bird song of the Thrasher.