# Jovan Andrei Tapia Valenzuela

# Computer Systems Engineer

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| Work Authorization (USC, GC, H1B, OPT, etc.) | 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 |

**Professional Summary:**

* I learned to code since I was 12 and have entered and won multiple coding competitions since. I majored in computer science and have two specializations, one in Machine Learning and another one in Videogames using Unity.
* I did a research internship at UCLA university for a machine learning topic related to bird singing language.
* My master's degree research was linked to computer vision for which I have developed a lot of passion and love.
* Currently I'm working as a consultant in Bank of America as a Software Architect Engineer for the NVD project for ETS fraud system, and have vastly expanded my knowledge in Oracle, Java, Python, Angular, Ansible and Bash scripting.
* I love challenges, and constantly changing technologies which is why computer science is the perfect field.
* 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.

**Technologies:**

Subjects: Bioinformatics, Video Surveillance, Web Technologies, Artificial Intelligence.

Java frameworks: Spring, Hibernate.

API: Rest, Json, SOAP, WebSockets, SSO, MIME, OAuth

RDBMS & DWH: MySQL, SQL Server, Sybase, Oracle, DB2, MongoDB

Software Life Cycle: Deployment Management, Scrum/Agile Methodology

Programming Languages: Java, Python, C.

Continuous Integration: Jenkins, Puppet, Chef, GIT

Web Technologies: HTML, CSS, jQuery, JavaScript, Angular

Observability DevOps: Dynatrace, Splunk, Nimsoft, SiteScope, Kibana, Elasticsearch.

Office Software VB (Visual Basic), TOAD, Access, Excel Macros, Visio, Fircosoft.

**Education:**

* M.S., Computer Science from Monterrey Institute of Technology and Higher Education in 2023 - 2025
* B.S., Computer Science - Specialization in Artificial Intelligence, Computer Graphics, and Bioinformatics Research from Monterrey Institute of Technology and Higher Education in 2007- 2012.

**Certification:**

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

**Professional Experience:**

**Bank Of America via Dexian, New Jersey Jun 2022 – Present**

**Software Architect Developer Tech Lead**

**NVD (Never Down)**

As the Software Architect Developer for the NVD project at Bank of America, I led a project meant to convert the existing ETS Fraud Sanctions application close to a 24/7 application with minimal downtime. 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.

* Led a 4-person cross-functional team across U.S and India.
* Completed factory configuration of 100+ Red Hat Servers.
* Fully developed a functional web platform for Host component and graph visualization using technologies such as Angular 15, SpringBoot, Python. Oracle db, bash scripting.
* Configured Json setup for MQ AmqChannels.
* Enabled SSO verification into the Apache servers bigip.
* Enabled Typescript services with Angular 15 to communicate with the SpringBoot API backend service.
* Script deployment with parallel python delta analysis for graph visualization.
* Sanitization of data with Oracle db stored procedures with sum hash for verification.
* 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 Ansible yaml playbooks to dynamically deploy files depending on the environment.
* Configured Fircosoft scripts to adapt to business needs.
* Transformed data between datasets for normalization purposes using sql and bash.

**Environment:** Java, Red Hat, MQ, Oracle db, Golden Gate, Ansible, Angular15, Python, Bash scripting.

**Freddie Mac via Hexaware Virginia Oct 2020 – Jun 2022**

**Software Developer Technical Lead**

**Loan Product Advisor**

Loan Product Advisor is one of the main services Freddie Mac offers as part of the process of Underwriting loans. For this Hexaware was hired to serve as a common bridge between all the technical teams that interact with the application and with business. Some of the technical teams I interact with daily include Network team, Development team, Infrastructure team, TAM team, DBA team, Third-party vendors teams among others. As a technical lead, I need to be able to explain and assign tasks to several resources under my responsibility regarding how to write Bash Scripts, Sybase & DB2 sql queries, analyze code for defect detection and correction and create added functionalities with Java using Spring MVC. Also, I had to manage weekly meetings with several different teams regarding different issues with each of the services.

* Singleton configuration for microservices to ensure integrity of data across several pods.
* 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 and API calls.
* 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.

**Environment:** Java 8, Sybase, Windows 7, Linux, Solaris, AWS, Spring Security, Spring MVC, Angular10, Selenium, Junit, Java, Maven, Jenkins, Bash Shell Scripting, Perl, HTML, CSS, MongoDB.

**Freddie Mac via Hexaware Virginia Jun 2016 – Oct 2020**

**Development Team Member**

**Loan Delivery System Project Simulator**

The project consisted in the developing of a web application which allowed the users to log in, visualize the historical of currency exchange and interest rate, manage users, manage client, and create questions. The system security is managed with Spring Security, the system logic is implemented with Spring MVC, and the system testing works with JUnit and Selenium. The project followed the scrum-based agile approach.

* Created JUnit test cases.
* Designed web pages front-end and back-end with JSP, HTML, and CSS.
* Implemented CRUD with Spring MVC, for the FAQ and financial sections.
* Participated in daily standup meetings.
* In charge of designing Jenkins pipeline.
* Created shell scripts to automate jobs in Linux server.
* Created a Web Service with Dropwizard and REST API.
* Worked with the Database using MySQL.
* Built a framework with Selenium during training.
* Created an Online banking simulator front end with HTML, CSS, and JavaScript during training.
* Received training in Software Development Life Cycle, Configuration Management, Deployment Management, Training in Continuous Integration, Puppet, Chef, and Jenkins.
* Received training in UML, Testing & Review, Agile Methodology, and TDD.
* Received training in HTTP, HTML, CSS, Web Services, REST, SOAP, and JQuery.
* Received training in RDBMS, SQL, DWH, ETL, and Informatica.
* Received training in Unix and Shell scripting.
* Received training in JIRA, Selenium, Gherkin, Cucumber, ALM, JUnit, and TestNG.
* Received training in Java, JDBC, Hibernate, and Spring.

**Environment:** JAVA, J2EE, My SQL, Windows 7, Ubuntu 14.04, Spring Security, Spring MVC, Selenium, Cucumber, Gherkin, Junit, Java, Maven, Jenkins, Unix Shell Scripting, JSP, HTML, CSS, Agile methodology.

**ITESM CEM, Mexico City Jul 2012 – Jun 2016**

**Researcher**

**Video Surveillance Analysis and Pattern Recognition Algorithms.**

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.

* Collected data from a real time stream and compared it with a historical log.
* Supervised Learning was to categorize people by their type of movement, defining features for speed, time in screen, linearity.
* Designed a framework based on Python which made use of a local internal repository containing multiple projects developed by fellow PhD colleagues.

**Environment:** Linux Server Ubuntu 14.04, OpenCV, Python.

**University of California, Los Angeles, Mexico City Aug 2010 – Jun 2012**

**Researcher**

**Bird Songs Analysis**

PhD Charles Taylor, from UCLA University has been investigating for almost 40 years the bird’s song. I had the opportunity to work with him creating a database which allowed them to control the way they had been making input into the system. Also, they lent me some data from which I extracted patterns concerning how the syllables of the songs were constructed.

* Designed a Database constantly consulting the whole team of researchers which resided in various universities.
* 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.

**Environment:** Java, JQuery, MySQL, PHP