# 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 been coding since I was 12 and have won multiple coding competitions. I majored in computer science with specializations in Machine Learning and Video Game Development 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 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.

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#### 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.