

Victor A Medina

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SKILLS

Languages: Python, SQL, HTML, CSS, JavaScript

Frameworks and Libraries: Django, Pandas, Numpy

Tools: Git, AWS, CI/CD, MySQL, Neo4J, Jira, Scrum, Agile

Operating Systems: Windows, Linux

WORK EXPERIENCE

Boeing, Long Beach CA

Full Stack Software Engineer; Product Standards Digital Enterprise

12/2021 - 09/2022

- Maintained legacy codebase and developed customer change requests for over 12 applications with varying tech stacks such as Perl, Python, XML, Oracle DB and Java
- Collaborated with developers/architects to implement migration of existing applications from on premise to a cloud architecture using AWS
- Utilized knowledge in data structures and algorithms to refactor existing code resulting in over 90% time savings
- Created technical documentation for legacy applications to enable technical success for future developers

Senior Software Engineer; Propulsion DevOps

01/2019 - 12/2021

- Created GIT standard practices for FEM development through airplane programs reducing FEM development by 75%
- Utilized Gitlab CI/CD pipeline to create finite element pre/post checks that will automatically test finite element models commits for checks typically done manually thus significantly reducing manual workload by over 80%
- Created a proof of concept knowledge graph using Neo4J

Software Engineer/Structural Analysis Engineer; Propulsion Systems Division

08/2015 - 12/2021

- Utilized Pandas/Numpy to assist in the creation of metallic acreage checks that will automate structural analysis typically done manually thus allowing for less errors and rework
- Created a data pipeline stress analysis summary template utilizing python data analytics tools (Pandas, Numpy) and visualization tools (Seaborn, Plotly) that gives end users insight on critical areas of analyzed parts as well as analysis trends
- Utilized Python's data analytic packages (Pandas, Numpy) to quickly determine element load trends between different load cases reducing man hours by 75% versus manually importing data through excel
- Created a script that would transform data from various case studies and automatically create respective run files to efficiently determine potential design space reducing manual work by 25%
- Lead Structural Analysis Engineer for the APU system development team for NMA involving several suppliers/teaming partners, and require frequent customer interface

PROJECTS

Cross Reference Database Replacement; Boeing Product Standards Digital Enterprise

- Created a web application utilizing Django Framework backed by MySQL and HTML/CSS/JavaScript which tracks engineering artifacts located in various servers/websites which significantly improved engineers ability to reference other engineering documents and significantly reduce rework
- Developed an API to easily allow transfer records from outdated Microsoft access database saving over 2,000 man hours when compared to manual entry
- Created a dashboard utilizing Pandas and Plotly with service request key analytics to help inform the team on best future structural repair manual initiatives and drive design improvements

Cloud Resume; [Project Link/Github Repo](#)

- Developed a static website of my resume using React hosted on AWS S3
- Utilized AWS services such as API gateway, Lambda and DynamoDB to include a resume hit counter on the website
- Integrated Playwright for testing, Terraform to utilize Infrastructure as Code for AWS services and Github actions for CI/CD
- Integrated AWS CloudWatch, SNS and Chatbot for monitoring which provides personal notifications via email and slack messages

LEADERSHIP

Lead Software Engineer; SoCal Propulsion DevOps, Boeing

05/2019 - 02/2020

- Lead of the SoCal Propulsion site introducing tools and processes to the regional site
- Developed analytical processes/tools using Python to improve effectiveness, quality and efficiency of the development effort.
- Mentored structural analysis engineers site wide on Python and GIT
- Managed project budgets, proposals and statuses for Propulsion leadership

EDUCATION

Carnegie Mellon University, Pittsburgh, PA

Master of Science in Mechanical Engineering, GPA: 3.83/4.0

05/2015

Bachelor of Science in Mechanical Engineering, GPA: 3.37/4.0

05/2014

University of Washington

Certificate, Python Programming

01/2020

Amazon Web Services

AWS Certified Solutions Architect- Associate

06/2022