MATTHEW VALDEZ

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OBJECTIVE

Software Engineer with a strong understanding of best practices and passion for developing extensible and maintainable code

WORK HISTORY

Umbra Lab Inc - Senior Software Engineer | January 2023 - Present

- Tech Lead for internal QA and Analytics tool. Work closely with business users and analysts.
- Delivered Billing feature that enabled >100K$ increase in sales
- Integrate Kafka into solution to enable real-time updates of SAR imaging status
- Increase capacity and efficiency of QA Team by more than 100% with the rapid development of the systems
- Maintain and develop FastAPI microservice system for orders and delivery as a tech lead.

HopeForge - Founder | March 2021 - Present

- Consult about software design and architecture
- Work on next generation signal processing infrastructure within Kubernetes
- Upgrade reporting by migrating to PySpark on Databricks while increasing performance from 1 day to ~3 hours
- Help maintain a Ruby on Rails codebase while aiding in breaking a monolith
- Create Go application that decreased model creation time from hours to 6 minutes utilizing Azure Container Jobs and deploying to container environments.
- Create Go TUI to download and modify SAR Images to be used in Social Media applications utilizing templates
- Develop Go and FastAPI standards that were adopter throughout customer enterprise

Philips (Respironics) - Senior Software Engineer | March 2021 - January 2023

- Help design and develop new Data Lake architecture utilizing S3, Hudi, and Presto
- Create python Simulator for performance testing Kafka Event Stream sending 10's millions records through kafka
- Develop python GUI to configure Spark and Airflow jobs - lowering development time from weeks to days

MRSL Real Time Systems Laboratory - Senior Software Engineer | February 2016 - March 2021

- Lead and manage a team of engineers in converting MATLAB system into Python
- Create complex data processing systems utilizing Java, Python, and MATLAB
- Utilize NumPy and PANDAS to create a high-performance large data analytical system
- Develop visual analytics software via Bokeh, Tornado, and Angular
- Create internal Java applications to enhance the workflow for configuration and testing
- Develop new methods to process data for efficiency - Reducing memorying footprint from 2GB to 200MB
- Lead a small team in creating tools to debug Inputs and Outputs of the system
- Optimize system API to MongoDB for real-time data processing utlizing batch processing to increase speed by 50%
- Enhance embedded system processing using C++ by creating remote debugging interfaces

Sandlot Solutions - Integration Engineer | January 2015 - February 2016

CPSI - Developer II | May 2013 - January 2015

Education

University of West Florida (Masters) - M.S. Computer Science
Cornell University - Certification in Machine Learning
University of West Florida (Bachelors/Honors) - B.S. Software Engineering

Technical Skills

Java	13 yrs	MongoDB	FastAPI	git
Python	10 yrs	PostgresSQL	API Design	SVN
Golang	3 yrs	NumPY	Infrastructure	gitlab
C++	3 yrs	Pandas	multiprocessing	CI/CD Pipelines
MATLAB	2 yrs	Dask	ZeroMQ	Docker
AngularJS	2 yrs	Spark	Kafka	Kubernetes
React	2 yrs	gRPC	Rest API	NoSQL
		Azure and AWS	S3	SCRUM
		SQL		Jira