JULIO CERNADAS

ENGINEER   INNOVATOR   PIONEER

I am a software engineer with a passion for designing, building, and extending enterprise applications. I analyze business challenges and apply efficient solutions via the most optimal technology and architecture.

CONTACT

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LANGUAGES

- Python
- SQL
- JavaScript
- Java
- C++
- Bash

TOOLS

- Pandas
- FastAPI
- Postgres
- React
- NodeJS
- Spring
- Docker
- Terraform
- Jenkins
- Kubernetes
- Apache Airflow
- Apache Spark
- Apache Kafka
- Tableau

CERTIFICATES

- AWS Solutions Architect
- Bloomberg Market Concepts
- Google Advanced Analytics

EXPERIENCE

Software Engineer at Ness Digital Engineering – NY   **September 2020 – Present**

Market Axess Inc:
- Pioneered the Index and ETF business through the successful launch of our "US Investment Grade 400 Corporate Bond" index, transforming a forgotten initiative into a foundational pillar of company revenue. Led all tech deliverables to release the first SPDR fixed income ETF built on liquidity (+$28 Million AUM).
- Amplified data product efficiency by refactoring system design and migrating to data lake. Transformed applications to follow event driven design, modularity, dependency injection, design patterns, data quality assurance, web crawling, error handling, release management, infrastructure as code, and monitoring.
- Migrated on-premises Java applications with micro-service architectures into containerized cloud-hosted APIs running on AWS ECS with ELB and available on Route 53 DNS. Provisioned with Terraform and deployed with Jenkins, Docker and Artifactory. Performance tuned and tested using Apache J-Meter.
- Implemented monitoring layers for company platforms using Prometheus, Grafana, Data Dog, and AWS X Ray to anticipate and analyze production issues resulting in a 99% uptime and minimal SLA breaches.

Millennium LP:
- Architected an analytics web application that drove a fund-of-funds selection process to identify alpha and investment opportunity, delivering 20% higher fund ROI. Service was hosted on AWS, powered by Python data operations orchestrated with Apache Airflow and persisted on Postgres and S3. GUI was developed with React front-end and Flask back-end, and assisted with an analytics dashboards on Tableau.
- Compiled data from multiple vendors into data warehouse, leveraging snowflake schemas using Kimball dimensional modeling. Integrated data pipelines with normalization, standardization, and machine learning stages to improve centralized data quality and accuracy for business users.

Nomura Holdings Inc:
- Innovated a serverless data pipeline and dashboard for navigating FINRA CAT compliance. Written in Python and Apache Spark, and hosted on AWS services like S3, Lambda, Glue, Athena, and Quick Sights.
- The product's identification algorithm and analytics was estimated to anticipate and reduce violations by 75%. This led to conversations with partners and was released as an AWS Marketplace financial solution.

London Stock Exchange Group:
- Spearheaded system design for a "dev-ops as a service" web application by leveraging the MERN stack (MongoDB, Express, React, NodeJS), it enabled users to build CI/CD pipelines via a drag and drop GUI.
- Integrated application with AWS services like EC2, Lambda, API Gateway, Cognito, EventBridge, and S3. Packaged with webpack, babel, and vercel pkg. Deployed with Terraform and Jenkins.

Implementation Engineer at EZOPS Inc – NY   **May 2019 – June 2020**
- Migrated a legacy deployment process into a modern continuous integration continuous delivery pipeline resulting in 90% faster end-to-end software delivery. Manual tasks were transitioned to automated cloud builds using Docker, Terraform, Packer and Jenkins along with client support for on-premises environments.
- Managed client environment installations and upgrades through automated build scripts, configuration management, memory optimization, scalability from containers and service orchestration (docker swarm).
- Maintained 99% server uptime through Data Dog monitoring, troubleshooting, root cause analysis, and minimizing potential risks. Conserved 45% of AWS costs by developing infrastructure monitoring scripts and introducing a cloud management Slack app that was connected to several Lambda functions.

EDUCATION

University of Maryland, College Park – MD   **Smith School of Business**
Bachelor of Science, Finance   Class of 2019

Byte Academy – NY   **Immersive Full Stack**
Fintech and Python Development   Class of 2018