CARLOS ALBERTO PINEDA

📞 +504-9807-3391   @ pinedalberto@hotmail.com   🔗 https://www.linkedin.com/in/carlos-pineda-a1a780220/
🔗 https://www.carlopineda.space   📍 Ocotepeque, Honduras

EXPERIENCE

LMS Software Developer
CentralReach (Full Time)
📅 08/2024 - Present
- Engineered large scale assignment workflows in **AssignPro**, supporting more than **5,000 clinicians** and processing thousands of behavioral records daily.
- Designed multistage processors for bulk content assignment using **Spring Boot**, **JPA**, **Flyway**, **JDBC batch**, and **keyset pagination** to ensure correctness and high throughput.
- Implemented real time content synchronization workflows and event driven operations with idempotent state transitions to guarantee consistency under concurrency.
- Developed OAuth 2.0 integrated authentication and adapter layer abstractions within a **hexagonal architecture** to isolate domain logic from infrastructure.
- Partnered with ABA specialists to encode rules in processing pipelines. Reduced errors and decreased latency between content updates and learner access.
- Automated infrastructure using Terraform, Docker, Jenkins, and AWS. Enhanced deployment reliability and reduced manual ops overhead.

Software Engineer
San Services (Full Time)
📅 11/2023 - 08/2024   📍 San Pedro Sula, Honduras
- Improved booking workflow performance for a high-volume reservation platform handling **100,000+ monthly bookings**, optimizing SQL queries, indexes, and connection-pool configuration.
- Reduced request latency by **35%** through asynchronous processing, caching strategies, and elimination of bottlenecks in the reservation pipeline.
- Implemented concurrency-safe operations, and fault-tolerant synchronization to ensure consistency across distributed services.
- Collaborated with cross-functional teams to refactor unstable modules, improving system reliability and reducing production incidents.
- Strengthened system observability by integrating structured logging, metrics, and performance dashboards for continuous monitoring.

Full Stack Developer
Nova Casa (Full Time)
📅 05/2023 - 08/2023   📍 San Pedro Sula, Honduras
- Enhanced data synchronization capabilities resulting in an increase in efficiency by developing a web-based real estate platform.
- Worked closely with the operations and marketing teams to deliver an intuitive dashboard that streamlined content publishing and catalog visibility.
- Integrated the company's property listings with Facebook Catalog, automating synchronization and reducing manual publishing efforts.
- Helped reduce listing publication time by 60% and supported the onboarding of over 1,500 properties, improving data accuracy across platforms.

Backend Developer
Onetouch (Contract)
📅 09/2023 - 06/2024   📍 San Pedro Sula, Honduras
- Engineered real-time ingestion pipelines processing thousands of GPS events/min using event-time sequencing, UUID idempotence, jitter smoothing, and hybrid spatiotemporal indexing (Postgres GiST + in-memory R-trees) for sub-10ms courier–order matching.
- Designed concurrency-safe, event-driven order-state workflows resilient to network instability and high update frequency, improving system correctness and user experience during peak hours.
- Automated CI/CD pipelines and optimized backend performance, reducing deployment time by ~70% and significantly improving API latency for drivers, restaurants, and customers.

EDUCATION

B.S. in Computer Science Engineering
Universidad Católica de Honduras

GPA
93.2 / 100

📅 01/2020 - 12/2023
📍 Santa Rosa de Copán, Honduras
- Graduated **Magna Cum Laude**, **1st in class.**
- Recognized for academic excellence and leadership in software development projects during undergraduate studies.
- Relevant Coursework: Algorithms, Operating Systems, Distributed Systems (independent study), Database Systems, Software Architecture.

PUBLICATIONS/RESEARCH

Undergraduate Thesis - Business Intelligence in Real Estate in San Pedro Sula's Market
Universidad Católica de Honduras
Pineda, Carlos
📅 09/2023

AWARDS

First in Class – Computer Science (Magna Cum Laude)
Graduated with the highest GPA (93.22/100) in Computer Science, Class of 2024. Selected as top graduate among peers for academic excellence and leadership.

2nd Place – DevCon LATAM 2025 Hackathon (EduKids AI)
Awarded for developing an AI-powered English learning platform for children, recognized for innovation in Edtech and social impact in Latin America.

SKILLS

Backend & Systems Engineering
Spring Boot, Spring Data, Spring Batch, Node.js, Express.js, Flask, Microservices, Distributed Systems, Event Driven Architecture, Domain Driven Design, Hexagonal Architecture, Maven, Gradle, Concurrency Control, Data Structures and Algorithms

Programming Languages
Java, Go (Golang), Python, JavaScript, TypeScript, SQL

Databases & Data Engineering
PostgreSQL, PostGIS, MongoDB, Couchbase, Oracle Database, MySQL, Redis, Redshift, ETL Pipelines, Streaming Parsers (CSV, XLSX), Smartsheet SDK

EXPERIENCE

Software Engineer Intern
DESOFIW (Apprenticeship)
📅 06/2022 - 11/2022   📍 Siguatepeque, Honduras
- Developed a mobile application for a local restaurant as part of a software engineering internship, using Node.js (backend) and React Native (frontend).
- Built a RESTful API to manage business logic, user authentication, and data handling.

PROJECTS

AssignPro – Distributed Assignment Platform (CentralReach)
🔗 https://assignpro.centralreach.com/
- Designed distributed workflow engines for multi-stage assignments, improving throughput by **25%** and reducing manual administrative load by **40%**.
- Implemented type-safe domain logic using **DDD, Hexagonal Architecture**, JPA, Flyway, and PostgreSQL, ensuring reproducible state transitions across environments.
- Developed React/TypeScript frontend with real-time progress tracking, error recovery, and admin dashboards.
- Built CI/CD pipelines with Docker, Jenkins, and Terraform, standardizing deployments and reducing infrastructure setup time by **30%.**

Smartsheet Data Processor (CentralReach)
A serverless ETL and Batch Automation system for enterprise-grade form ingestion and reporting.
- Engineered ingestion and validation pipelines using **Spring Batch** and **AWS Lambda**, automating large-scale data processing and reducing manual tasks by **70%**.
- Improved data integrity using schema validation, typed transformations powered by PostgreSQL.
- Enabled reliable downstream analytics through enhanced synchronization workflows, cutting inconsistencies by **40%**.

40 Hour RBT LTI Certificate Generator (CentralReach)
- LTI 1.3 / OIDC.
- JWT validation.
- Verifiable certificate generation.
- PDF rendering and audit trail.
- Education technology infrastructure.

OBE Next Gen (San Services)
🔗 https://obe.beaches.com/
- Designed and enforced an MVC-based architecture with Spring Framework, ensuring clean separation of concerns and maintainability.
- Operated booking workflows with Spring Batch, processing tens of thousands of reservations daily with high efficiency.
- Optimized data management and synchronization using PostgreSQL and Spring Data, reducing manual intervention by 40%.
- Ensured scalability and fault tolerance with Kubernetes and ArgoCD, achieving seamless deployments and reliable uptime during peak booking periods.

Booking Relay System – (San Services)
A high-throughput relay synchronizing tens of thousands of resort bookings daily across heterogeneous systems.
- Built a resilient reservation synchronization pipeline using **Spring Batch**, Oracle DB, Couchbase (as a fast caching layer), and PostgreSQL.
- Achieved **99.9% booking consistency** across OBE Next Gen and central databases with optimized batching and fault-tolerant retry logic.
- Leveraged Kubernetes and ArgoCD for reliable deployments during high traffic.

FudGo – Real-Time Delivery Platform API (Onetouch)
🔗 https://www.fudgo.com/
Real-time ingestion engine for courier tracking and event-driven workflows.
- Implemented **GPS ingestion pipelines** handling thousands of events per minute using event-time ordering, jitter smoothing, and idempotent UUID sequencing.
- Built hybrid spatial indexing (PostGIS GiST + in-memory R-trees) enabling sub-10ms courier-order matching.
- Designed event-driven order state transitions resilient to network jitter and concurrency issues.

SKILLS

Cloud & DevOps
AWS (ECS, Lambda, S3, RDS, CloudWatch, SES), Terraform, Docker, Kubernetes, Jenkins, ArgoCD, CI/CD Pipelines, Linux, Git

Frontend & Tooling
React.js, TypeScript, Next.js, SASS, TailwindCSS,

Soft Skills
Technical communication, cross-functional collaboration, product alignment with domain experts, and mentorship in engineering environments.

CERTIFICATIONS AND COURSES

Go Developer
Hyperskill - July 2025

MongoDB Associate Developer
MongoDB - July 2025

Software Engineer Certificate
HackerRank - June 2025

Java Certificate
HackerRank - April 2025

SQL Certificate
HackerRank - April 2025

DevOps & Cloud Specialization
Coursera - April 2025

Software Engineering: Modeling Software Systems using UML
Coursera - April 2024

AWS Cloud Technical Essentials
AWS - November 2024

Databases and SQL for Data Science with Python
IBM - February 2023

Learn Spring Boot 3 in 100 Steps
Udemy - December 2023

Spring Framework Master Class - Java Spring the Modern Way
Udemy - November 2023

Tools for Data Science
IBM - February 2023

What is Data Science?
IBM - January 2023

Algorithms, Part I
Princeton University - December 2025

Python Data Structures
University of Michigan - October 2021

Python for Data Science, AI & Development
Coursera - July 2022