

SOFTWARE ENGINEER · ML ENTHUSIAST

Seattle, Washington, US

■ nottu1990@gmail.com | • nottu | in jperalta90

Summary

Software Engineer experienced in distributed systems and storage at scale, with a track record of improving efficiency, cost, and reliability across cloud platforms. Proficient in **Rust**, C++, and C#, and experienced in delivering high-impact projects in data security and system optimization. Passionate about systems programming, machine learning, and game development. I am excited to tackle new challenges while continuously learning and growing as an engineer.

Experience

Google (Cloud Platform / Persistent Disk Data Security)

Kirkland, Washington

Software Engineer

Sept. 2023 - Aug. 2025

- Worked on Persistent Disk a reliable, high-performance block storage for virtual machine instances used by millions of GCP customers, delivering improvements in storage efficiency, cost, and security at petabyte scale.
- Contributed to a major data format optimization effort **LFF3** for **Persistent Disk** which led to a 3% reduction in data size, resulting in significant cost savings and improved storage efficiency.
- Co-lead encryption enhancements to align with company-wide standards, improving security and adopting the latest internal cryptographic libraries.
- Leveraged existing compaction and compression logic for **Device Encryption Key** (DEK) rotation, eliminating the need for data recompression and reducing compute costs by 30%.
- Refactored compaction workers to adopt the new **Transcoder** encoding library, enabling bulk data processing, unifying the codebase, and unlocking broader initiatives like **LFF3** and **DEK rotation**.
- Coordinated end-to-end enablement of Transcoder in production, catching critical bugs in staging, and ensuring smooth rollout without customer impact.

Microsoft (Engineering Systems RnD)

Redmond, Washington

Software Engineer

Feb. 2020 - Sept. 2023

- Co-led the design and rollout of automation for *Open-Source Code* detection within *Inner-Source Code*, decomposing a monolithic service into microservices. Built scalable APIs in **Azure** (**Web Jobs, Functions, Storage Containers, Service Bus**), achieving a 4x increase in scanning capacity and unblocking release sign-offs for flagship products such as Microsoft Windows and Office.
- Contributed to the company-wide migration from .NET Framework to .NET 6.0, collaborating with cross-functional teams to resolve compatibility challenges. Streamlined large codebases by upgrading deprecated dependencies, eliminating dead code, and consolidating duplicates, improving maintainability and performance.

Oracle Mexico Development Center

Guadalajara, Mexico

Software Engineer

Jul. 2015 - Apr. 2017

- Developed web applications for Oracle Management Cloud Enterprise Manager using **Backbone.JS**, creating, testing, and optimizing data visualizations for Target-Analytics.
- Implemented *Unit Tests* and *Integration Tests* using **Selenium** to identify and address performance bottlenecks in the application.

Quadev (Startup) Cuernavaca, Mexico

Software Developer

Aug. 2013 - Jun. 2015

- · Collaborated with a team to build an application for SAGARPA, a Mexican government agency. using Java EE and Apache Flex
- Led the internal effort to migrate the technology stack to **Java Spring**, resulting in a more efficient and maintainable codebase.

Education

CIMAT (Centro de Investigacion en Matematicas · **Research Center in Mathematics)**

Guanajuato, Mexico

M.S. in Computer Science

Aug. 2017 - Dec. 2019

- Graduate level reaserch in ML, with focus on **shape descriptors** for radio galaxies through classical statistical models and image analysis as well as through:
 - · Convolutional Neural Networks · Auto Encoders · Generative Adversarial Networks
- Got a Scholarship given through CONACYT

ITESM (Instituto Tecnologico de Monterey · Technological Institute of Monterrey)

Cuernavaca, Mexico

B.S. in Computer Science and Engineering

Aug. 2009 - Dec. 2013

· Got a Scholarship given to students with high GPA