

#### SOFTWARE ENGINEER · ML ENTHUSIAST

Seattle, Washington, US

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# 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

B.S. in Computer Science and Engineering

• Got a Scholarship given to students with high GPA

Aug. 2009 - Dec. 2013