

MIGUEL ANGEL FUENTES HERNANDEZ

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PROFESSIONAL SUMMARY

Machine learning engineer with a Master's from Stanford, experienced in building, deploying, and evaluating AI systems across a range of domains. Co-author of ICLR 2025 research and creator of MedHELM, an evaluation framework for medical LLMs. Skilled in training and optimizing models on large-scale, privacy-sensitive infrastructure, with hands-on experience across classical ML, deep learning, and generative AI. At Amazon and Oracle, led projects that improved SDK adoption, cloud platforms, and backend automation at scale.

EDUCATION

Stanford University

September 2023 - June 2025

Master's, Computer Science

- Machine Learning, NLP, LLMs, Reinforcement Learning, Artificial Intelligence, Big Data, AI in Healthcare

Universidad Nacional Autónoma de México (UNAM)

August 2016 - February 2021

Bachelor's, Telecommunications Engineering

GPA: 3.98

- Gabino Barreda Award, Top Student in Class

PROFESSIONAL EXPERIENCE

Stanford University

Stanford, CA, USA

ML Research Assistant - School of Medicine

September 2024 - Present

- Developed MedHELM, the first evaluation framework for LLMs in medical applications, by coordinating efforts between Stanford, Stanford Healthcare, and Microsoft.
- Developed automated evaluation metrics for LLMs on medical benchmarks by leveraging LLMs to assess responses against ground truth based on accuracy, completeness, and clarity.
- Reduced training time by 40% across 20 models with varying architectures and context lengths, optimizing PyTorch pipelines and leveraging CUDA for large-scale datasets.
- Co-authored research on long context foundation models for clinical risk prediction. Accepted at ICLR 2025 (Top 5% of submissions).

Amazon

Seattle, WA, USA

Software Engineer Intern

June 2024 - September 2024

- Increased developer adoption of Login with Amazon SDK by redesigning the sample app to follow Android architecture best practices and showcase 100% of SDK capabilities.
- Improved app usability and scalability by leading cross-functional collaboration with UX, legal, and open-source teams to enhance the Kotlin-based implementation.
- Streamlined third-party e-commerce integration by modernizing SDK releases from zip file distribution to Maven and GitHub.

Health-e

Mexico City, DF, Mexico

Co-Founder

October 2022 - September 2023

- Won the Santander Startup Building Award (2022) by developing a fullstack MVP that addressed key user needs in digital health.
- Increased user engagement by 30% and satisfaction by 20%, by iterating on platform features based on user feedback.
- Maintained 100% security compliance with zero data breaches, by implementing two-factor authentication and strict access controls.

Oracle

Guadalajara, JAL, Mexico

Senior Software Engineer

March 2021 - September 2023

- Drove \$30 billion in annual revenue by leading the design of AI-powered cloud monitoring services using Java, Python, and Oracle Cloud Infrastructure SDK, improving reliability for 150,000+ systems worldwide.
- Increased operational efficiency by automating testing infrastructure with Rundeck and Shell scripting, saving 500 human hours per month, and optimizing backend load balancing, failure detection, and recovery processes.
- Enhanced incident response and service reliability by reducing response times by 30% and decreasing escalations by 40% through proactive troubleshooting training for engineers and best practices in monitoring.

PROJECTS

Selected Projects

Stanford, CA, USA

- Hospital LOS Prediction: Developed hospital length of stay predictor achieving 85% accuracy via ensemble modeling.
- Disease Classification: Built multi-label chest X-ray disease classifier with 93% accuracy using VGG19.
- CoughSync: Created a time series cough detector on iOS to track cough frequency of patients with chronic respiratory conditions.

Mexican Association of Graduate Students

Stanford, CA, USA

Vice President

June 2024 - Present

- Organized networking events for Mexican graduate students across departments.
- Built partnerships with Latin American groups to promote cultural exchange.
- Led initiatives to foster an inclusive and welcoming community.

SKILLS

Skills: Python, Pytorch, LLM, Reinforcement Learning, CUDA, lora, qlora, Computer Vision, Kotlin, iOS/Swift, Google Cloud Platform, Natural Language Processing (NLP), Machine Learning, AI, Apache Spark, oracle cloud, Java, C/C++