Carlos Efrain Quintero Narvaez

ITESM (Tecnológico de Monterrey) – Monterrey, Mexico
M.Sc. in Computer Science

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Technical Skills: Python, Pytorch, C++, Java, Typescript, SQL, MSSQL, AWS, .NET, React, Angular

Work Experience

December 2023 -Present	**Amazon.** *Software Engineer II.* Working on the **Amazon Photos** team using **Java** on the backend to orchestrate and homogenize interface personalization settings across all the **Amazon devices**.
May 2023 -December 2023	**TechDetech.** *Blockchain and Back-End Engineer.* Responsible for **Smart Contract** development and **Web3** integrations for projects in a wide range of fields such as **game development** and **venue ticket sales** platforms.
October 2022 - January 2023	**Meta.** *Software Engineer I.* Contributed to the development of the **Instagram Developer Platform API**, utilizing **GraphQL** to expose relevant data to business consumers.
October 2021 - October 2022	**GeoptData Consulting Services.** *Software Engineer.* Developed and maintained **OLAP Cubes** in **Microsoft SSIS** and dashboards in **.NET** for **Business Intelligence** in corporate databases for renowned Mexican companies such as FEMSA, Cruz Azul and Farmacias del Ahorro.
June 2021 - September 2021	**Google.** *Software Engineer Intern.* Worked on the **Security Engineering** team and contributed to the implementation of new authentication protocols for internal Google tools.
January 2021 - April 2021	**Facebook.** *Software Engineer Intern.* Contributed to the open-source project **FlexFlow** for optimization of parallelization strategies in Deep Learning while working on the **Facebook Artificial Intelligence Research** (FAIR) team.

Projects

May 2023	**P3rsonalities.** **Web3** hackathon project with a **Zero Knowledge Proof** implementation for attestation of questionnaire result evaluation. With the purpose of developing a **network of verifiable identities** that connects companies with professionals according to their needs. An academic paper was written with the results from this project.
January 2021	**FlexFlow. (flexflow.ai)** Contributed to the development of a deep learning tool that accelerates training using many GPUs for distributed computations with different parallelization strategies.

Published Work

May 2024	**Circuit Implementation and Analysis of a Quantum-Walk Based Search Complement Algorithm.** Proposal and implementation of a modified quantum walk-based search algorithm. Executing it experimentally on IBM quantum processors.
March 2024	**Integrating Knowledge Graph Data with Large Language Models for Explainable Inference.** Proposal for a method to enable **Large Language Models** like **LLaMA** to access **Knowledge Graph (KG) data** and justify their text generation by showing the specific data the model accessed during inference. Presented at the **17th ACM International Conference on Web Search and Data Mining**.
September 2023	**Zero-Knowledge Proofs for Questionnaire Result Verification in Smart Contracts.** Implementation of a Web3 platform that leverages the Groth16 **Zero-Knowledge Proof** schema to verify the validity of questionnaire results within **Smart Contracts**. Presented at CISMA 2023.