

# Lupita Vásquez Fabela

New York City ▪ [gsvfabela@gmail.com](mailto:gsvfabela@gmail.com) ▪ [lupitavsqf.github.io/Portfolio](https://lupitavsqf.github.io/Portfolio)

**Human–AI systems designer** ▪ **Full-stack product engineering** ▪ **Focused on education and cognitive accessibility**

Systems-focused AI product builder working at the intersection of cognition, interaction design, and large language models. Designs and prototypes that prioritize accessibility and human skill development.

## Education

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**MFA Design and Technology** 2024 – 2026  
[Parsons School of Design](#) New York City  
*Merit Scholarship by The New School & Full Scholarship by SECIHTI, Mexican Government*  
Impact Entrepreneurship Initiative Fellow

**B.Sc. Chemistry** 2022  
[Facultad de Química, Universidad Nacional Autónoma de México](#) Mexico City  
Specialization in Computational Chemistry and Philosophy of Chemistry

## Skills

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**AI Systems & Orchestration:** Agentic systems, LLM orchestration, short-term memory optimization, non-deterministic workflows

**Data & Modeling:** Statistical analysis, machine learning, data visualization, metrology

**Programming:** Python, SQL, C++, HTML, CSS, JavaScript ecosystem (Node.js, React, TypeScript)

**ML Frameworks:** Pandas, NumPy, Scikit-learn, TensorFlow, PyTorch, Matplotlib

**Agile Leadership:** Scrum (multi-team), Kanban, Sprint Planning, Retrospectives, Backlog Grooming, Risk Mitigation

**Product & Workflow:** Jira, Confluence, Azure DevOps, Git, ServiceNow, PowerBI

**Design & Prototyping:** Figma, Adobe XD, Illustrator, Premiere Pro, After Effects

**Languages:** Spanish (Native), English (Fluent), French (B1), Portuguese (A1)


## Certifications

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**HCIA-AI** *Huawei Training Center, Hangzhou, China, 2024*  
**AWS Partner Accreditation (Technical)** *Amazon Web Services, 2022*  
**ITIL Foundation Level** *PeopleCert, 2022*  
**Professional Scrum Master I (PSM I)** *Scrum.org, 2022*

## Experience

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**Founder / Product Manager and Interaction Designer** *August 2024 – Present*  
 **BIG FROOTS — Inclusive EdTech** New York City  
*Incubated during the Impact Entrepreneurship Initiative Fellowship at Parsons School of Design*  
[BIG FROOTS website](#) [Eleva explanation](#)

- Designed and prototyped agentic AI systems with LLMs centered on accessibility, using cognitive constraints to reduce computational costs, translating research into documented, reproducible workflows — including the Eleva middleware layer, a working memory orchestration system for LLM-assisted coding.
- Developed patent-pending lightweight orchestration layers, databases, and data pipelines for LLM powered agents, optimizing short-term memory (or context), tool-calling behavior, and recovery from non-deterministic failure paths.
- Conducted user research on cognitive load and non-deterministic AI behavior, producing educational frameworks for how developers and end users interact with LLM agents.
- Developed prototypes of digital equestrian gear with haptics for accessibility in horse-riding therapy sessions.

## IT Transition and Delivery Manager

Nissan

IT Governance and PMO

March - October 2023

Mexico City

- Oversaw 7 project managers across 23 concurrent initiatives within IT Governance and PMO operations.
- Designed automated data pipelines and reporting workflows in ServiceNow, reducing manual reporting overhead and automating data visualization, adhering to Kanban and Scrum frameworks.
- Designed and automated PowerBI dashboards to support executive-level visibility into delivery timelines, risk, and resource allocation.

## Program Manager

Blue People

Business and Software Development

November 2022 – March 2023

Mexico City

- Led the end-to-end development of an AWS-based e-commerce platform supporting logistics and warehouse optimization.
- Consolidated infrastructure into a single returns-handling facility by redesigning backend workflows and operational data flows.
- Acted as Scrum Master for AWS-based software delivery teams, facilitating Agile ceremonies, sprint execution, and cross-functional coordination between engineering, product, and operations.
- Designed data pipelines integrating Kanban systems into sales management portals, improving data visualization and cross-team coordination.

## Business Development Lead

eJAmerica

Business Development and Strategic Operations

December 2020 – October 2022

California, USA

- Designed and executed data-driven lead-generation campaigns, contributing to 40% of new client acquisition during 2021–2022.
- Facilitated Agile workflows between sales, product, and engineering teams; led sprint planning and backlog alignment to translate client RFP requirements into executable technical deliverables.
- Led technical presentations and stakeholder meetings, facilitating alignment between business objectives and engineering capabilities.
- Conducted market research to assess strategic initiatives, contributing to website renewal, enhancement of the in-house SaaS recruitment platform (eJRekruit), and digital communication strategy.

## Publications and Preprints

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### A Pragmatist Approach for New Dynamic Ontologies in Chemistry

2022

Undergraduate Thesis, Universidad Nacional Autónoma de México

Supervised by M.Sc. Luis Avelino Sánchez Graillet

Explored temporality as a core dimension of chemical identity, challenging reductionist models and laying foundations for pluralistic dynamic system representation in computational contexts.

[Spanish version](#)   [English version](#)

### Philosophical Pragmatism and Design as a Workaround to Common Fallacies in Executive Function Enhancement through Artificial Intelligence

2025

Analyzes limitations of reductionist AI narratives through design and pragmatist philosophy, with implications for cognition-aware AI systems.

[English version](#)

### ReinGuide — Smart Haptic Reins for Inclusive Horse-Riding Therapy

2024–2025

MFA Thesis, Parsons School of Design · BIG FROOTS

Designed and evaluated a haptic interface for equine-assisted therapy, translating verbal riding instructions into low-intensity vibrotactile cues for nonverbal and autistic children.

Covers materials research, embedded prototyping, and user testing across therapy sessions, with findings indicating reduced cognitive load and improved participant engagement.

### Designing a Cognitively Accessible Coding Assistant with Memory-Aware LLM Orchestration

2026

Research Proposal, Parsons · UNAM

Introduces a structured memory orchestration (SMO) layer for LLM-based coding assistants, replacing full-history context injection with a bounded state representation to reduce token growth from  $O(n^2)$  to near-linear scaling.

Applies chunking and progressive disclosure to support novice programmers, with a within-subjects study ( $n = 18-35$ ) evaluating efficiency, comprehension, and cognitive load. Currently in pilot phase.

[View full research portfolio](#)

## Awards and Honors

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**base44 x Wix Cross Campus Hackathon - The New School and NYU (Second Place)** *Wix Playground. New York City, April 2026*

**PlayfulNYC Creative Technology Hackathon (Grand Prize and Best of Hardware)** *The New School Innovation Center. New York City, April 2026*

**Impact Entrepreneurship Initiative Fellowship (10K USD towards tuition)** *The New School, New York City, 2024*

**Parsons School of Design - Merit Scholarship (90K USD towards tuition)** *The New School, New York City, 2024*

**SECIHTI - Mexican Government Scholarship for Graduate Studies Abroad (53K USD towards tuition and living expenses)** *Mexican Government, Mexico City, 2024*

**IA 1000, Top 100 HCIA-AI Certification Scores in Mexico** *Mexico City and Hangzhou, China, 2024*

**Premio Impacto a la Innovación UNAM, Second Place** *Mexico City, 2019*

**National Chemistry Olympiad, Silver Medal** *Guadalajara, México, 2012*

**IX Concurso Hispanoamericano de Ortografía, Top 5 National Contestant** *Mexico City, México, 2008*