

# Junior Francisco Garcia Ayala

Linkedin: <https://www.linkedin.com/in/juniorfranciscogarcia/>

Github: <https://github.com/jgarcia1599>

Portfolio: <https://www.juniorfranciscogarcia.com/>

Email : [juniorgarcia@nyu.edu](mailto:juniorgarcia@nyu.edu)

Mobile : +1-929-735-4765

Google Scholar

## EDUCATION

### New York University

*Master of Science (M.Sc.) in Computer Science; GPA: 3.951/4.0*

Brooklyn, NY, United States of America.

September 2023 – December 2025

- **Courses:** Human-Computer Interaction, Human-Centered AI, Advanced Analysis of Algorithms, Big Data Systems.
- **Awards:** Full tuition, stipend, and housing support awarded through a graduate research assistantship.

### New York University Abu Dhabi

*Bachelor of Science (B.Sc.) in Computer Science; GPA: 3.6/4.0*

Abu Dhabi, United Arab Emirates

Aug. 2017 – May 2021

- **Courses:** Machine Learning, Computer Graphics, Large-Scale Web Applications, Computer Networks, Operating Systems.
- **Awards:** UAE 10-year Golden Visa for outstanding academic achievement; full-ride 350,000 USD merit scholarship.

## EXPERIENCE

### Adobe

*Machine Learning Engineer 2*

San Jose, California, United States of America

January 2026 – Present

- Assigned to work full-time on Adobe Experience Platform's AI team, contributing to the Agent Orchestrator, an agentic layer designed to serve enterprise business needs at scale using AI agents.

*Machine Learning Engineer Intern*

May – August 2025

- Designed and built an AI agent using LangChain, OpenAI GPT-4o, and full-stack web development (React, FastAPI) for Adobe Experience Platform that predicts customer support errors before adverse business impact. The agent improves error remediation rates by 43.9% and boosts customer support engineer productivity by 49.6% compared with existing tools. Paper accepted to the AAAI 2026 Demonstration Track; poster under review at ACM CHI 2026.

### Human-Data Interaction Lab at NYU Abu Dhabi

Abu Dhabi, United Arab Emirates

September 2021 – May 2025

*Research Assistant*

- Partnered with a Google DeepMind researcher to design AI agents that assist legal mediators in resolving group conflicts, applying human-AI collaboration principles in partnership with the Abu Dhabi Global Market's dispute resolution center.
- Co-authored and engineered an award-winning research project (ACM CIKM Best Paper Award Top 1%) that mitigated data void misinformation in search engines and knowledge graph embedding models, achieving 95% improvements over the baseline in data-void misinformation mitigation; leveraging high-performance computing, large-scale web scraping, and machine learning techniques.
- Served as primary author (ACM CSCW 2024) and lead engineer for a collaborative real estate search platform (React.js, Node.js, PostgreSQL) that reduced decision-making friction by 10% for distributed teams through asynchronous multi-user search features.
- Mentored and guided 5+ undergraduate student interns, enabling direct contributions to research projects.

### DTCC Digital Assets (formerly Securrency)

Abu Dhabi, United Arab Emirates

December 2020 – May 2021

*Software Engineer (Automated Quality Assurance)*

- Contributed to the development of a blockchain-based FinTech platform enabling asset tokenization and liquidity by leveraging distributed ledger technology, smart contracts, and compliance automation.
- Designed and implemented 300+ automated test cases using Pytest, Python, and SQLAlchemy, reducing manual QA time by over 60% and improving release cycle efficiency.
- Collaborated in an Agile/Scrum environment with developers, QA engineers, and business analysts to ensure product quality, uncover defects early, and maintain regulatory compliance.
- Reviewed and enhanced 10+ product requirements and API specifications, providing technical recommendations that improved system reliability and integration accuracy.

## SKILLS SUMMARY

**Programming Languages:** Python, JavaScript/TypeScript, C/C++, SQL, Java, HTML/CSS, Bash Scripting

**Technical Expertise:** Machine Learning (ML), Deep Learning, Artificial Intelligence (AI), Data Science, Natural Language Processing (NLP), Large Language Models (LLMs), AI Agent Development, Conversational AI, Retrieval-Augmented Generation (RAG), Prompt Engineering, Multi-Agent Systems, Full-Stack Web Development, Front-End Development, Back-End Development, End-to-End Development, Database Systems (PostgreSQL, MySQL), Distributed Systems.

**Libraries and Tools:** Git/GitHub, Docker, Kubernetes, Node.js, React.js, p5.js, Pytest, D3.js, Figma, SQLAlchemy, GraphQL, Spring, Django, Flask, FastAPI, PyTorch, TensorFlow, Jupyter Notebook, LangChain, Hugging Face, OpenAI API, Linux.

**Human Languages:** English (Native Proficiency), Spanish (Native Proficiency).

**Research:** Author of four research papers in premier HCI and AI venues, including CSCW, IJCAI, AAAI, and CIKM.

**Fun Facts:** Long-distance runner and marathoner (40 km weekly); Honduran Eagle Scout.

## PUBLICATIONS

---

1. Sujan Dutta\*, Junior Francisco Garcia Ayala\*, Pranav Pujar\*, Sai Sree Harsha, Dan Luo, Nikhil Vasudeva, Bikas Saha, Pritom Baruah, and Yunyao Li. 2026. PAGER: Proactive Monitoring Agent for Enterprise AI Assistant. In *Proceedings of the 40th AAAI Conference on Artificial Intelligence (AAAI-26), Demonstration Track*. Association for the Advancement of Artificial Intelligence, Singapore. <https://aaai.org/>
2. Shuai Feng, Wei-Chuang Chan, Srishti Chouhan, Junior Francisco Garcia Ayala, Srujananjali Medicherla, Kyle Clark, and Mingwei Shi. 2025. Whispers of Many Shores: Cultural Alignment through Collaborative Cultural Expertise. In *NewInML Workshop at ICML 2025*. <https://arxiv.org/abs/2506.00242>
3. Miro Mannino, Junior Garcia, Reem Hazim, Azza Abouzied, and Paolo Papotti. 2025. Data Void Exploits: Tracking & Mitigation Strategies (Extended Abstract). In *Proceedings of the Thirty-Fourth International Joint Conference on Artificial Intelligence, IJCAI 2025, Montreal, Canada, August 16-22, 2025*. ijcai.org, 10927–10931. <https://doi.org/10.24963/IJCAI.2025/1218>
4. Junior Francisco Garcia Ayala, Miro Mannino, and Azza Abouzied. 2024. "I'll Pay Half the Cost, for the Loft" — From Searching to Agreeing on Group Property Rentals. In *Companion of the 2024 Computer-Supported Cooperative Work and Social Computing (CSCW Companion '24)* (San Jose, Costa Rica). ACM, New York, NY, USA, 7 pages. <https://doi.org/10.1145/3678884.3681908>.
5. Miro Mannino, Junior Garcia, Reem Hazim, Azza Abouzied, and Paolo Papotti. 2024. Data Void Exploits: Tracking & Mitigation Strategies. In *Proceedings of the 33rd ACM International Conference on Information and Knowledge Management (CIKM '24)* (Boise, ID, USA). ACM, New York, NY, USA, 11. <https://doi.org/10.1145/3627673.3679781>. **Best Paper Award (top 1%)**.

\* denotes equal contribution.