

Junior Francisco Garcia Ayala

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EDUCATION

New York University Tandon School of Engineering

Brooklyn, NY, United States of America

Doctor of Philosophy (PhD) in Computer Science

July 2023-Present

- **Advisor:** Professor Azza Abouzied.
- **Research Topics:** Human-Computer Interaction (HCI), Computer-Supported Collaborative Work and Decision Making
- **Honors:** GPA: 3.905/4.0; Global PhD Fellowship, a comprehensive 5-year, 500k USD funding package.

New York University Abu Dhabi (NYUAD)

Abu Dhabi, United Arab Emirates

Bachelor of Science in Computer Science, minor in Interactive Media and Technology

Aug 2017 - May 2021

- **Honors:** United Arab Emirates Golden Visa Awardee for outstanding academic achievement; 350k USD scholarship.

EXPERIENCE

Human-Data Interaction Lab at NYUAD

Abu Dhabi, United Arab Emirates; Remote

Graduate Research Assistant and Global PhD Student Fellow

July 2023 - Current

Research Assistant

September 2021 - July 2023

Undergraduate Research Assistant

September 2020 - September 2021

- Collaborated with the lab's Primary Investigator (PI), Professor Azza Abouzied, to develop research projects in HCI.
- Collaborating with a researcher from Google DeepMind and the lab's PI to develop a Large Language Model-powered system for mediating conflicts in group decision-making, utilizing a mixed-methods approach, aiming for a top-tier HCI publication.
- Contributed to a team-led research project focused on tackling misinformation in search engines and knowledge graphs, utilizing high-performance computing, web-scraping, machine learning, and data analysis and visualization techniques.
- Acted as the primary author for a CSCW Companion paper on a collaborative real estate search tool (React.js, Node.js, PostgreSQL) designed to support groups of remote users to search for a property asynchronously.
- Mentored and guided 4 undergraduate student interns, enabling their direct contributions to various research projects' codebases and databases.

Securrency

Abu Dhabi, U.A.E.; New York City, U.S.A

Software Quality Assurance Engineer

December 2020 - May 2021

- Contributed to the development of Securrency, a FinTech platform that monetizes excess capacity in assets by leveraging disruptions in finance (Blockchain, smart contracts, distributed ledgers).
- Collaborated with the Automated Quality Assurance Team in an Agile/Scrum environment to create over 300 automated tests using Pytest, Python, and SQLAlchemy.
- Reviewed and proposed enhancements for 10+ product requirements and API endpoints to senior engineers and business analysts following the automation of the testing process.

Laboratory for Computer-Human Intelligence

Abu Dhabi, U.A.E.

Machine Learning and Software Engineering Researcher

May 2020 - January 2021

- Conducted research on human visual shape recognition strategies under PI Tuka Alhanai.
- Developed a full-stack data collection tool deployed on Amazon Mechanical Turk as a user study, utilizing Flask, Apache, JavaScript, and MySQL
- Analyzed the results of a 500-user study using Python libraries (NumPy, Matplotlib, Pandas) and implemented a proof-of-concept PyTorch ML model, leveraging slurm for parallelized training on a high-performance computing cluster.

Amaxa

Remote

Lead Software and Product Engineer

May 2019 - August 2020

- Contributed to the launch of Amaxa (formerly SmallWorld), an online platform that connects high school students with mentors and NGOs to solve humanitarian problems.
- Achieved recognition as one of the Top 8 teams at the TiE Global University Pitch Competition, securing over 5000 USD in funding. The competition comprised 526 teams from 7 countries and was held in Silicon Valley.
- Led software development and served as the Product Lead for the company's primary product, built with the MERN stack.

PUBLICATIONS AND POSTERS

1. 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>
2. 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>