

PhD Adriana Meza Soria (she, her)

(949) 449-6470 | adriana.meza.soria@ibm.com | <https://ameza13.github.io/adriana-meza-soria/>

EDUCATION

- **Ph.D. in Software Engineering** 2017–2022
University of California, Irvine
Dissertation: "Understanding How Information Flows in and out of Regularly Scheduled Software Maintenance Design Meetings: a Case Study"
<https://escholarship.org/uc/item/283097z2>
GPA: 3.98 (0-4 scale)
- **M.S in Engineering (Summa Cum Laude)** 2016
CETYS University, Tijuana, Mexico
GPA: 100 (0-100 scale)
- **B.S. in Computational Systems Engineering** 2013
Technological Institute of Tijuana (ITT), Tijuana, Mexico
GPA: 96.39 (0-100 scale)

PROFESSIONAL EXPERIENCE

- **MIT-IBM Watson AI Lab, AI Models Engineering team, Research Engineer** 2023-present
Generative AI and Software Engineering, Synthetic Data, Data Engineering
- **MIT-IBM Watson AI Lab, AI Models Software Group (APT), Research Engineer** 2022-2023
Generative AI and Software Engineering, Data Engineering
- **MIT-IBM Watson AI Lab, APT Research Intern** Summer 2021
Design and prototyping
- **Grupo Tress Internacional (GTI), Senior Software Engineer** 2013–2017
End-user application design and development, application modernization, developers' coaching
- **IWAI Metal Mexico, IT Assistant** 2012–2013
Internal software development and IT management activities
- **TELNOR, Intern** 2011–2012
Early design and prototyping

TEACHING EXPERIENCE

- **Professor** Summer 2020
UC Irvine CA, U.S.A
Programming in Java as a second language (undergraduate)
- **Teaching Assistant** Fall 2018–Winter 2021
UC Irvine CA, U.S.A
- **Professor** 2016–2017
CETYS University Tijuana, Mexico
- **Professor** 2014–2017
Autonomous University of Baja California (UABC) Tijuana, Mexico

ACADEMIC SERVICE

- **International Conference in Learning Representations** 2025
Program committee member
- **International Conference in Software Engineering** 2025
Program committee shadow member
- **International Conference in Software Engineering in Practice** 2025
Program committee member
- **International Conference on Cooperative and Human Aspects of Software Engineering** 2025
Program committee member
- **Designing Workshop** 2025

- Program committee member*
- **IEEE Software, Special Issues** 2024
Reviewer
- **International Conference on Cooperative and Human Aspects of Software Engineering** 2024
Short-paper track co-chair
- **International Conference on Cooperative and Human Aspects of Software Engineering** 2023
Proceedings chair, Program committee member
- **Designing Workshop** 2024
Program committee member
- **Mining Software Repositories** 2021
Program committee shadow member

HONORS AND AWARDS

- Recipient of Miguel Velez Scholarship (3rd) 2022
- Latino Excellence and Achievement Award 2021
- Grace Hopper Celebration Scholar 2020
- Best product idea & CodePath favorite 2020
- Recipient of Miguel Velez Scholarship (2nd) 2019
- Recipient of Rosalva Gallardo Valencia Graduate Award 2019
- Second place at AMIA Design Challenge 2018
- Recipient of Miguel Velez Scholarship (1st) 2017

ACTIVE RESEARCH AREAS

- Generative AI: Synthetic Data, Function calling LLMs, Agentic frameworks
- Human Aspects of Software Engineering: Qualitative Studies in Software Engineering

PUBLICATIONS

- Yikang Shen, Matthew Stallone, Mayank Mishra, Gaoyuan Zhang, Shawn Tan, Aditya Prasad, **Adriana Meza Soria**, David D. Cox, Rameswar Panda. 2024. Power Scheduler: A Batch Size and Token Number Agnostic Learning Rate Scheduler. <https://arxiv.org/abs/2408.13359> (under submission)
- Ibrahim Abdelaziz, Kinjal Basu, Mayank Agarwal, Sadhana Kumaravel, Matthew Stallone, Rameswar Panda, Yara Rizk and GP Bhargav, Maxwell Crouse, Chulaka Gunasekara, Shajith Iqbal, Sachin Joshi, Hima Karanam, Vineet Kumar, Asim Munawar, Sumit Neelam, Dinesh Raghu, Udit Sharma, **Adriana Meza Soria**, Dheeraj Sreedhar, Praveen Venkateswaran, Merve Unuvar, David Cox, Salim Roukos, Luis Lastras, Pavan Kapanipathi. 2024. Granite-Function Calling Model: Introducing Function Calling Abilities via Multi-task Learning of Granular Tasks. <https://arxiv.org/abs/2407.00121> (Accepted EMNLP 2024)
- Mayank Mishra, Matt Stallone, Gaoyuan Zhang, Yikang Shen, Aditya Prasad, **Adriana Meza Soria**, Michele Merler, Parameswaran Selvam, Saptha Surendran, Shivdeep Singh, Manish Sethi, Xuan-Hong Dang, Pengyuan Li, Kun-Lung Wu, Syed Zawad, Andrew Coleman, Matthew White, Mark Lewis, Raju Pavuluri, Yan Koyfman, Boris Lublinsky, Maximilien de Bayser, Ibrahim Abdelaziz, Kinjal Basu, Mayank Agarwal, Yi Zhou, Chris Johnson, Aanchal Goyal, Hima Patel, Yousaf Shah, Petros Zerefos, Heiko Ludwig, Asim Munawar, Maxwell Crouse, Pavan Kapanipathi, Shweta Salaria, Bob Calio, Sophia Wen, Seetharami Seelam, Brian Belgodere, Carlos Fonseca, Amith Singhee, Nirmal Desai, David D. Cox, Ruchir Puri, Rameswar Panda. 2024. Granite Code Models: A Family of Open Foundation Models for Code Intelligence. <https://arxiv.org/abs/2405.04324> (Technical Report)
- Daniel Graziotin, Alexander Nolte, Birgit Penzenstadler, Klaas-Jan Stol, Giuseppe Destefanis, **Adriana Meza Soria**, Silvia Abrahão: Proceedings of the 2024 IEEE/ACM 17th International Conference on Cooperative and Human Aspects of Software Engineering, CHASE 2024, Lisbon, Portugal, April 14-15, 2024. ACM 2024. <https://dblp.org/rec/conf/icse-chase/2024.html> (Proceedings Editor)
- Zhen Guo, **Adriana Meza Soria**, Wei Sun, Yikang Shen, Rameswar Panda. 2024. API Pack: A Massive Multi-Programming Language Dataset for API Call Generation. <https://arxiv.org/abs/2402.09615> (Under Review)
- **Adriana Meza Soria**, Taylor Lopez, Elizabeth Seero, Negin Mashhadi, Emily Evans, Janet Burge, and André Van der Hoek. 2024. Characterizing Software Maintenance Meetings: Information Shared, Discussion

Outcomes, and Information Captured. In Proceedings of the IEEE/ACM 46th International Conference on Software Engineering (ICSE '24). Association for Computing Machinery, New York, NY, USA, Article 56, 1–13. <https://doi.org/10.1145/3597503.3623330> (Published)

- L. Seero, J. Burge, **A. M. Soria** and A. Van Der Hoek, "Exploring a Research Agenda for Design Knowledge Capture in Meetings," 2023 IEEE/ACM 16th International Conference on Cooperative and Human Aspects of Software Engineering (CHASE), Melbourne, Australia, 2023, pp. 37-42, doi: 10.1109/CHASE58964.2023.00013 (Published)
- **Adriana Meza Soria**. 2022. Understanding How Information Flows In and Out of Regularly Scheduled Software Maintenance Design Meetings: A Case Study. <https://escholarship.org/uc/item/283097z2> (Dissertation)
- **Adriana Meza Soria**, André van der Hoek, and Janet Burge. 2022. Recurring distributed software maintenance meetings: toward an initial understanding. In Proceedings of the 15th International Conference on Cooperative and Human Aspects of Software Engineering (CHASE '22). Association for Computing Machinery, New York, NY, USA, 21–25. <https://doi.org/10.1145/3528579.3529179> (Published)
- Brooke Ryan, **Adriana Meza Soria**, Kaj Dreef, and André van der Hoek. 2022. Reading to write code: an experience report of a reverse engineering and modeling course. In Proceedings of the ACM/IEEE 44th International Conference on Software Engineering: Software Engineering Education and Training (ICSE-SEET '22). Association for Computing Machinery, New York, NY, USA, 223–234. <https://doi.org/10.1145/3510456.3514164> (Published)
- **A. M. Soria** and A. Van Der Hoek, "The Design of a Study Concerning the Capture of Important Design Bits at the Whiteboard," 2021 ACM/IEEE International Conference on Model Driven Engineering Languages and Systems Companion (MODELS-C), Fukuoka, Japan, 2021, pp. 390-399, doi: 10.1109/MODELS-C53483.2021.00062. (Published)
- **Adriana Meza Soria**. 2020. KNOCAP: capturing and delivering important design bits in whiteboard design meetings. In Proceedings of the ACM/IEEE 42nd International Conference on Software Engineering: Companion Proceedings (ICSE '20). Association for Computing Machinery, New York, NY, USA, 194–197. <https://doi.org/10.1145/3377812.3381397> (Published)
- **A. Meza Soria** and A. van der Hoek, "Collecting Design Knowledge through Voice Notes," 2019 IEEE/ACM 12th International Workshop on Cooperative and Human Aspects of Software Engineering (CHASE), 2019, pp. 33-36, <https://dl.acm.org/citation.cfm?id=3338726> (Published)
- **A. Meza Soria** and A. van der Hoek, "Toward Collecting and Delivering Knowledge for Software Design at the Whiteboard," 11th International Workshop on Cooperative and Human Aspects of Software Engineering (CHASE), 2018, pp. 108-109, <https://ieeexplore.ieee.org/abstract/document/8445548> (Published)

SELECT PROJECTS

-
- | | |
|---|--------------|
| ▪ AI SE Agents (IBM MIT-IBM AI Watson Lab AI Models Engineering) | 2024-present |
| An LLM able to solve GitHub issues end-to-end. | |
| ▪ Synthetic Data (IBM MIT-IBM AI Watson Lab AI Models Engineering) | 2024-present |
| Decoding Synthetic Data Generation with Open Source LLMs | |
| ▪ API Pack (IBM MIT-IBM AI Watson Lab AI Models Engineering) | 2023-2024 |
| A code instruction dataset to improve LLMs ability to generate API calls. | |
| ▪ Software Maintenance Meetings (UCI SDCL) | 2020-2022 |
| Single case study of software development meetings. | |
| ▪ Internship mini-project (IBM MIT-IBM AI Watson Lab APT) | Summer 2021 |
| Architecture design and development of a service to leverage ML models for product demand forecasting. | |
| ▪ KNOCAP (UCI) | 2018-2022 |
| A suite of tools to collect important design bits from developers' conversations during whiteboard design meetings. | |
| ▪ Nana Stories (AMIA Design Competition) – 2nd at AMIA student design competition. | 2018–2019 |
| An Alexa skill that offers in-home exercises for children who require speech and language therapy. | |

VOLUNTEER WORK

- Mexico Graduate Research Education Program, UC Irvine (member) 2018–present
- I-SURF summer program, UC Irvine (mentor) 2019
- APPCamp summer program, UC Irvine (speaker) 2019
- ExploreCSR workshop (Google sponsored workshop), CSULB and UC Irvine (mentor) 2019

SKILLS

Technologies

- Programming languages: Python, Java, C#, Delphi, JavaScript
- Database: MySQL, SQL Server, Oracle, PostgreSQL
- IDEs: VS Code, Eclipse, RAD XE5, Android Studio, and XCode, PyCharm
- Data science: Jupyter Notebook, pandas, matplotlib, pytorch
- Sketching and modeling: Visio, StartUML, Moqups, Figma
- Project management: Trello and Target Process
- Code repositories: GIT, TSF (Microsoft), StarTeam
- Word editors: LATEX, Microsoft Word

Languages

- English (fluent), Spanish (native speaker)

PROFILES

LinkedIn: <https://www.linkedin.com/in/adriana-meza-soria-52799961>

ResearchGate: <https://www.researchgate.net/profile/Adriana-Meza-Soria>

GoogleScholar: <https://scholar.google.com/citations?user=BpMQCb4AAAAJ&hl=en>

dblp: <https://dblp.org/pid/223/2631.html>