

LEYLI (AYA) GARRYEVA

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RESEARCH INTEREST	I develop causal-neurosymbolic methods to make AI models for software engineering tasks more interpretable and trustworthy. My work leverages causal inference and symbolic reasoning to evaluate and improve Language Model performance for code-related tasks.	
PUBLICATIONS	Alejandro Velasco, <i>Aya Garryeva</i> , David N. Palacio, Antonio Mastropaolo, Denys Poshyvanyk ; Toward Neurosymbolic Program Comprehension ; ICPC'25 NIER track [Daniel Rodriguez-Cardenas, <i>Aya Garryeva</i> , David N. Palacio]*, Antonio Mastropaolo, Denys Poshyvanyk ; Towards a Theory of Causation for Software Experiments ; <i>Manuscript in Preparation</i> (* authors contributing equally)	
EDUCATION	William & Mary Ph.D. Candidate, Computer Science. GPA: 3.96/4.00 <i>Advisors:</i> Antonio Mastropaolo and Denys Poshyvanyk	Williamsburg, VA Expected: 05/2027
	William & Mary M.S. in Computer Science <i>Honors:</i> Graduate Studies Advisory Board Fellowship	Williamsburg, VA 12/2019
	Wingate University B.S. in Mathematics, Minors in Economics and Finance	Wingate, NC 05/2017
SKILLS	AI/ML: Causal Inference, Neurosymbolic Methods, LLM Fine-Tuning (PyTorch), CUDA Languages: Python, R, SQL Tools: GitHub, Azure Databricks, Jira, LaTeX	
PROFESSIONAL EXPERIENCE	Holland America Line , Data Scientist , Seattle, WA <i>R, SQL, Snowflake, Jira, Github, Machine Learning, Data Mining, Time Series Forecasting</i> <ul style="list-style-type: none">Developed machine learning models, including customer churn prediction and demand forecasting, to guide product improvements and marketing strategies.Worked cross-functionally with data scientists and product managers to improve demand forecast in highly uncertain times and optimize revenue strategies.	04/2021 - 09/2023
	Microsoft , Software Engineer - Contractor, Redmond, WA <i>Azure Databricks, KQL, Software Testing, Technical Writing</i> <ul style="list-style-type: none">Worked as a contractor for Quadrant Resource during my time at Microsoft, bringing valuable expertise to the development and improvement of the Azure Databricks platform.Utilized Kusto Query Language (KQL) to perform data analysis for root cause identification and more efficient triaging of the reported problems within Azure Databricks applications.	06/2020 - 04/2021
PROJECTS	Causal Repair of Code Language Models Pre-Post LLM Evaluation in Software Engineering Domain Adaptation for Image Segmentation, Evaluation of Bugs in Software Defined Vehicles	03/2025 - Present 09/2024 - 12/2024 02/2024 - 05/2024 9/2023 - 12/2023
LEADERSHIP & SERVICE	Mentored a student with Minds Matter Seattle Seattle, WA Served as an Instructor with Girls Who Code Charlotte, NC Founder and President of the Model United Nations Club Wingate University	2021-2022 2019 2014-2017
ACTIVITIES	Computing Research Association (CRA) Grad Cohort for Women Society of Women Engineers (SWE)	2024 2023 - present