Valeria Vera

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EDUCATION

Master of Science in Data Science and Analytics 08/2022 – 05/2024
Georgetown University USA

- Award: Fulbright grant to pursue a graduate degree

Bachelor of Engineering in Information Technology - Cum Laude 08/2015 – 11/2020
Benemerita Universidad Autonoma de Puebla (BUAP) - Computer Science department Mexico

- Award: Exceptional career development by *ANIEI*
- Thesis: Misogyny detection using supervised classifiers, results presented at GCURS Symposium at *Rice University*
- Research visit: Natural Language Processing with Java at the *University of Texas*

SKILLS

Computer Science skills:	Object-Oriented Programming, Design Patterns, Algorithms design
Data Science skills:	Natural Language Processing, Large Language Models, Optimization, Deep Learning
Programming Languages:	Python, Unix shell language, R, Java, C++, C, SQL
Packages:	Sklearn, Plotly, TensorFlow, Pytorch, Huggingface, Apache Spark, Hadoop (Azure, AWS)
Languages:	English, Spanish

WORK EXPERIENCE

Graduate Technical Intern – Machine Learning 05/2023 – 08/2023
Intel Corporation

- Performed data reduction, modeling, and correlation analysis for a 400,000 rows by 50,000 columns dataset
- Automated data extraction from an SQL database reducing extraction time by 80%
- Implemented unsupervised clustering techniques and reduced duplicated data by 60%
- Automated clustering analysis through a UI decreasing engineering time by 90%

Research Assistant 01/2023 – 05/2023
Center for Security and Emerging Technology

- Conducted an in-depth review of approximately 100 AI papers focused on "explainability"
- Documented the evaluation methodologies, benchmarks, and models adopted in the papers

Software Development Engineer 01/2021 – 08/2022
Intel Corporation

- Debugged software and hardware memory issues in Linux systems in over 20 Intel products
- Communicated over 30 Unix distributed systems to collect hardware signals
- Refactored a Python project legacy code reducing new costumer tools integration time by 60%
- Applied ML and RL to predict electrical conditions and automate test generation, saving over 90% of analysis time
- Presented results at an international conference with a 10-20% acceptance rate in 2021 and 2022

Software Validation Engineer Intern 12/2019–11/2020
Intel Corporation

- Improved test content creation using NLP, cutting development time by 85%
- Developed a Client-Server communication model on Python that reduced hardware expenses by 80%

PROJECTS

Analyzing Political Charisma with LLMs 04/2024
Implemented RAG to develop a chatbot for analyzing charisma in politics

Fine-tuning LLMs to Reduce Toxic Outputs 01/2024
Fine-tuned LLMs (Mistral 7B, Llama 3 8B) using curated datasets to reduce toxicity

TPU performance prediction using Graph Neural Networks 08/2023
Optimized performance of Graph Neural Networks for TPU runtime prediction with Keras

Walkability impact in D.C. 01/2023
Collected data with APIs, classified sentiment using LLMs, created visualizations using Plotly and Javascript

Revictimization: a misogyny detection problem 08/2022
Web scrapped data to fine-tune 3 LLMs and detect revictimization, results presented at *WiDs-Stanford University*