# 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 using Java at the University of Texas

# **SKILLS**

Computer Science skills: Object-Oriented Programming, Algorithms design, Design Patterns

Data Science skills: Natural Language Processing, Large Language Models, Optimization, Deep Learning

Programming Languages: Python, Unix shell language, R, Java, C++, C, SQL

Data packages: Sklearn, NumPy, Pandas, Plotly, Keras, Pytorch, Huggingface, Apache Spark, Hadoop

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%
- Performed 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**

## Toxicity analysis of large corpora using transformers

01/2024

Analyzed the impact of toxicity levels in large corpora across NLP tasks

**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.

Collected data with APIs, classified sentiment using transformers, created visualizations using Plotly and Javascript

#### **Revictimization:** a misogyny detection problem

08/2022

01/2023

Web scraped news articles and finetuned a BERT Model to detect revictimization with Pytorch

### Math learning support system for kids with ADHD

11/2019

Developed a WebApp using Unity based on serious games research. Presented at Congress of education CONTE