Salvador Robles Herrera

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EDUCATION

The University of Texas at Austin (UT Austin) GPA: 4.00

Master of Science in Computer Science (Concentration in ML & AI) *Expected: May 2026*

The University of Texas at El Paso (UTEP) GPA: 3.93

Bachelor of Science in Computer Science and Mathematics *Graduated: May 2024*

- **Relevant Coursework:** Deep Learning, Computer Vision, Machine Learning, Data Structures, Modern Algebra, Linear Algebra, Operating Systems, Software Integration and V&V, Database Management.

LANGUAGES & TECHNOLOGY

Languages: (Proficient) Python, Java, C, C++, SQL, R, Scala; (Familiar) HTML/CSS, JavaScript, Haskell.

Technologies: TensorFlow, PyTorch, NumPy, AWS, spaCy, Apache Spark, OpenCV, Git, Unix/Linux.

EXPERIENCE

Uber (Software Engineering Intern) May 2022 - Aug 2022

- Worked at the Data Security team, helping on efforts to classify Uber's data by experimenting with various **Machine Learning** algorithms and different feature engineering approaches.
- Collected data from Uber's environment for ML training using a **Scala** program that uses **Spark**.
- Outperformed previous classification accuracy by **5%** (93%) leveraging Python to create ML models.

Google (Software Engineering Intern) May 2021 - Aug 2021

- Worked at the **Industry Workflow Foundations** team helping on the migration from Borg to Vertex AI
- Added support for scalable vector matching relying on container's local volume (Python).
- Implemented a handler to copy data from Google internal storage systems to Google Cloud Storage.
- Worked in **C++** affecting thousands of Recommendation pipelines when running in production.

Google (STEP Intern) May 2020 - Aug 2020

- Created **"GoSafe: Routes for Women"** in collaboration with two interns, a Web App built for women that displays safer routes avoiding user-submitted crime reports between two places (**HTML/CSS**).
- Designed and implemented an obstacle avoiding recursive algorithm to find the safest route possible (**JavaScript**). Used Java Servlets to store crime user-reported information.

UNDERGRADUATE RESEARCH

Fairness in Artificial Intelligence (Research Assistant) May 2023 - Present

- Explored group fairness in 5 different Machine Learning algorithms provided by scikit-learn regarding hyperparameter configuration. Analyzed fairness results in **60 datasets** with ML experimentation.
- Presented 3 research papers on Large Language Models to a research group of Ph.D. students.

Theoretical Research and Applications (Research Assistant) Aug 2021 - Present

- Experimented with mathematical approaches to explain computational heuristics with knowledge from Neural Networks. Explored areas such as deep learning, statistics, uncertainty, and optimization.
- Collaborated on **6 published** research papers, with a current total of **2198 downloads**.

LEADERSHIP AND AWARDS

Awards: *Top Academic Award Scholarship, Outstanding Undergraduate Student in Mathematics Award (Top Math student graduating 2024), Summa Cum Laude - Mathematics, Summa Cum Laude - Computer Science*

Mathematics Olympiad: *Participated in 5 national competitions in Mexico (2013-2019)*

The Coding Interview Club (Officer) Aug 2020 - May 2024

- Coached 50 students on developing Problem-Solving skills by hosting bi-weekly organization sessions.
- Led members to land their first internship through resume reviews and java-oriented mock interviews.