Salvador Robles

salvadorrh@utexas.edu linkedin.com/salvadorrobles10 salvadorrh 915 282 6436

Education

University of Texas at Austin Expected May 2026
Master of Science in Computer Science ***(GPA: 3.74 / 4.0)*** *Austin, Texas*

- **Courses:** Natural Language Processing, Visual Recognition, Adv. Operating Systems, Adv. Deep Generative Models

University of Texas at El Paso Graduated May 2024
Bachelor of Science in Computer Science and Mathematics ***(GPA: 3.94 / 4.0)*** *El Paso, Texas*

- **Awards:** Department Rank 1 (Mathematics) **Academic Award Scholarship (top 0.1%)**
- **Courses:** Deep Learning, Machine Learning, Databases, Software Design, Linear/Abstract Algebra, Prog. Languages

Languages and Technologies

Languages: Python, C/C++, Java, Scala, JavaScript, R, HTML/CSS, Haskell, PHP
Frameworks: AWS, React.js, Node.js, GCP, Kubernetes, Docker, Unix/Linux, Git, Bash, CI/CD
Database & Data Systems: SQL (PostgreSQL, MySQL), PySpark, Apache Spark, MongoDB
Machine Learning: PyTorch, TensorFlow, Pandas, NumPy, Fine-Tuning LLMs, spaCy, OpenCV

Experience

University of Texas at Austin | *PyTorch, NumPy, Pandas, Scikit-learn, Multi-Agent systems* *Austin, Texas*
Teaching Assistant (Graduate: Grounded AI Agents; Undergraduate: Data Analytics) *Aug 2024 - Present*

- Collaborated with the professor to create and grade over **30+** Python exercises and exams for a 60-student course.
- Led bi-weekly office hours for **10+** students, achieving **100%** positive feedback on explaining course concepts.

Uber | *Python, Apache Spark, Scala, Data Security* *Seattle, Washington*
Machine Learning Engineer Intern *May 2022 - Aug 2022*

- Integrated ML models to classify and flag sensitive user data (e.g., identity + location) in Uber's DataK9 platform.
- Boosted accuracy from **87% to 93%** on exabyte-scale data, enabling categorization of over **400k+** datasets at Uber.
- Reduced latency by **10%** by developing a Scala-based Apache Spark pipeline to collect training data for inference.
- Designed and evaluated **10+** feature engineering approaches, identifying key predictors for **6%** accuracy gain.

Google| *C++, Python, Vertex AI, Recommendation Systems, Multi-threaded Programming* *Waterloo, Canada (Remote)*
Software Engineering Intern *May 2021 - Aug 2021*

- Contributed to the Cloud AI team's orchestration of large-scale ML workload migration from Borg to **Vertex AI**.
- Engineered a multi-threaded **C++** data handler, tuning thread count for optimal performance across **1k+** pipelines.
- Developed and tested support for scalable vector matching relying on a container's local volume in **Python**.

Google | *JavaScript, Java, HTML/CSS, UI/UX Design, Data Warehouse* *Mountain View, CA (Remote)*
Student Training in Engineering Program Intern (STEP) *May 2020 - Aug 2020*

- Developed a web app for safe travel routes, using the Directions API with a grid-based datastore for crime mapping.
- Implemented an obstacle-avoidance algorithm in **JavaScript** to display **top 3 routes** avoiding user-submitted data.

Projects

Muscle Growth in Motion | *PyTorch, Transformers (Hugging Face), Multimodal models* *May 2025*

- Benchmarked SOTA models (e.g ChatPose, TCC) for classifying tempo and form on **300k+** QEVD exercise clips.
- Improved classification by **20%** via temporal understanding and prompting, including **chain-of-thought** reasoning.

Evolutionary Optimization with LLM-Driven Agents | *LangChain, OpenAI API, NumPy* *Dec 2024*

- Developed a multi-agent system leveraging LLMs to mimic evolutionary computation, outperforming it by **20%.**
- Created a benchmarking framework to evaluate LLM-generated solutions across **3** different **optimization tasks**.

Huge Page Promotion ML Time-Series | *Linux Kernel, perf, eBPF, LSTM, RNN* *Nov 2024*

- Built time-series models (RNN, LSTM, XGB) to predict page faults from **20+** eBPF-collected synthetic workloads.
- Improved R-squared by **18%** over Linear Regression baseline using sliding-window memory access patterns.

Publications and Activities

- Predicting Fairness of ML Software Configurations PROMISE'24 **(Presented in Top Conference)**
- When is Deep Learning Better and When is Shallow Learning Better IJPEDS'22 (**Best Student Paper**)
- **Officer, The Coding Interview Club**: Coached **50+** students to land internships via mock interviews and weekly sessions.
- **Clubs:** UT Competitive Programming, Hispanics in Computer Science (HACS), Texas ACM, ML and Data Science Club.
- **5-time National Medalist** (Silver/Bronze, **Top 3, 0.001%**) in the Mexican Mathematics Olympiad.