

Fernando Sepulveda

(915) 352-6547 | fasepulveda@miners.utep.edu | [Digital Portfolio](#) | [in/fernando-sepulveda-utep](#)

EDUCATION

The University of Texas at El Paso (UTEP)

- Master of Science in Computer Science
- Bachelor of Science in Computer Science

GPA: 3.5 | Expected : 05/2027

GPA: 3.03 | Graduated : 12/2024

Honors & Achievements

UNCF Oracle Scholar 2023 | HITEC Scholar, 2024 & 23 & 22 | MSIPP Scholar, 2022 | Deans List 2025 & 2023

PROFESSIONAL EXPERIENCE

Kansas City National Security Campus - Honeywell

Kansas City, KS

Student Engineering Intern III – Data Scientist (Q level Clearance)

06/2024 – 08/2024

- Successfully implemented sophisticated data-driven factory automation processes using POLCA methodology leveraging Dataiku, Hadoop, and Python programming, projected to yield a minimum of 250,000 in savings
- Engineered a robust security-first semantic search system employing advanced Large Language Models such as BERT and Sentence-BERT with semantic search, ensuring highly secure data management

Oracle Cloud Infrastructure (OCI) - Oracle

Austin, TX

Software Engineer Intern

05/2023 – 08/2023

- Designed SQL scripts in Java to automate hypervisor management and testing, enabling region-specific organization for hosts based on technical requirements, including pool size and pool shape
- Built reusable façade class integrating RESTful APIs for seamless data transfer between front/back-end systems
- Reduced deployment time by 50% through comprehensive documentation of command-line interfaces

Smart Autonomous Mobility Systems (SAMS) Lab - UTEP

El Paso, TX

Undergraduate Research Student

08/2023 – 12/2024

- Published conference paper on security of Adaptive Cruise Control systems for 2024 IEEE ITSC Conference
- Developed insightful data visualization tools using Python libraries (matplotlib, pandas) to simulate and thoroughly analyze complex vehicle platoon dynamics using respective Intelligent Driver Model for AVs and HVs
- Applied optimization techniques (CPLEX, MATLAB) to enhance vehicle performance, efficiency, and safety

W. M. Keck Center for 3d Innovation - UTEP

El Paso, TX

Undergraduate Researcher

08/2022 – 06/2023

- Built cloud-based database system using Python, Linux, and Flask for improved research data connectivity
- Performed quantitative analysis on manufacturing processes, delivering measurable quality improvements

PROJECTS/ LEADERSHIP

Mike Loya Center for Innovation and Commerce

El Paso, TX

AI Graduate Research Fellow

01/2026 – Present

- Mentor student entrepreneurs in the development and commercialization of AI-driven business models, facilitating the transition of graduate-level research into market-ready prototypes
- Evaluate the technical feasibility and scalability of AI startups, providing strategic guidance on software architecture and algorithmic efficiency to optimize product-market fit

Machine Learning Research Project (UTEP)

El Paso, TX

AI Graduate Researcher

03/2024 – Present

- Implemented PyTorch-based CNN architecture for facial recognition with adversarial attack resistance, achieving 92% accuracy on benchmark datasets
- Developed custom data augmentation pipeline and feature extraction techniques to enhance model resilience against security vulnerabilities testing across various faces with 10000+ training samples

SKILLS

- **Programming:** Python (Advanced), Java (Advanced), Modern C++ (17/20), SQL, JavaScript, PHP, C, Dart, TypeScript, Shell Scripting/ Bash, ROS2
- **Machine Learning & AI:** Transformer-based LLMs, Computer Vision (CNNs), TensorFlow, API Integration, PyTorch, scikit-learn, Pandas & NumPy, Elastic search, SBERT, Sensor Fusion (LiDAR/Camera), Diffusion Models
- **Cloud & Databases:** Oracle Cloud Infrastructure (OCI), Amazon Web Services (AWS), Database Systems (MySQL, Neo4j, PostgreSQL, MongoDB)
- **Engineering & Simulation Tools:** Fusion 360, CURA, SOLIDWORKS, AutoCAD, laserDESK, LabVIEW, MATLAB, VG Studio
- **Development Practices:** Agile Development, API Design, Automation, RESTful Services
- **Languages:** English (C2), Spanish (C2), French (C1), Portuguese (A1)