

San Antonio, TX
(512) 574-5840
Ldselvera@gmail.com

LUIS SELVERA

linkedin.com/in/luisselvera
github.com/Ldselvera

EMPLOYMENT

- Machine Learning Engineer** June 2021 – Present
Enterprise Advanced Analytics, CPS Energy San Antonio, TX
- Lead Outage Prediction system impacting enterprise by reducing time to respond to outage events.
 - Lead Vegetation Management tool improving reliability using spatial analytics to prioritize high risk areas.
 - Developed and automated monitoring system to assess machine learning product performance.
- Cyber Security Intern** June 2020 – June 2021
Cyber Threat Intelligence Internship, Idaho National Laboratory Idaho Falls, ID
- Evaluated machine learning techniques for analysis of malware and extracted firmware.
 - Performed data collection and transformations from various cyber threat intelligence sources.
 - Developed Structured Threat Intelligence Graphs for analyzing threat intelligence using relational graphs.
- Graduate Research Assistant** August 2019 – June 2021
Secure AI and Autonomy Lab, The University of Texas at San Antonio San Antonio, TX
- Used NLP Transformer sequential models for classification, anomaly detection, and time series forecasting.
 - Developed machine learning models to detect threats in systems with 90% detection rate.
 - Analyzed and processed real-world data using advanced querying, visualization, and analytics tools.

EDUCATION

- M.S. in Computer Science** with Concentration in **Data Science** May 2021
The University of Texas at San Antonio GPA: 3.84
- B.S. in Computer Science** May 2019
The University of Texas Rio Grande Valley GPA: 3.69

Relevant Coursework: Natural Language Processing, Machine Learning, Data Science, Software Engineering, Data Mining, Database Design & Implementation, Algorithms & Data Structures, Large Scale Data Management

LANGUAGES AND TECHNOLOGIES

- Python, C, C++, Java, SQL, NoSQL
- Pytorch, TensorFlow, Keras, Scikit Learn, Spark, Tableau, Django, Flask,
- HiveQL, Elasticsearch, Splunk, OrientDB, MySQL, PostgreSQL, MongoDB

PUBLICATION/PRESENTATION

- **Selvera, L.** (2022, May) *Metrics & Adoption of AI/ML Outage Prediction Technology*. Presented at the Utility Analytics Summit, New Orleans, LA
- De La Torre Parra, G., **Selvera, L.**, Khoury J., Irizarry, H., Bou-Harb, E., Rad, P. (2022, January). [Interpretable Federated Transformer Log Learning for Threat Forensics](#). NDSS: Network and Distributed System Security.

PROJECTS

- **Multivariate Time Series Transformer for Network Intrusion Detection** (2021) Transformer model trained on network data to detect intrusion and classify the type of attack. Fastai, Pytorch, Python
- **Social Media Sentiment Analysis on Covid-19** (2021). Website showing sentimental analysis on Covid-19 data collected from Twitter and Google. Python, Django, MongoDB
- **Trolls Detection Tool** (2020). Website to allow users input text to detect trolls. Classification achieved using sequential BERT model trained on Reddit dataset. Pytorch, Flask, Python, Jupyter
- **Insincere Question Classification Tool** (2019). Website to allow users input question to detect insincere question-based on Bi-LSTM trained on Quora dataset. Pytorch, Flask, Python