Sergio Soage

Senior Machine Learning / NLP Engineer

English: Upper- Intermediate
Buenos Aires, Argentina

Professional Profile

AI researcher and engineer specialized in NLP. Worked in supervised, semi-supervised and unsupervised domains. Currently working with LLMs, prompting techniques (guardrails, chains and agents).

I have also worked with multi modal data, that is Vision, structured data and time series.

Professional Experience

Parser, Senior Machine Learning

JAN 2021- Present

Currently working on the Event Extraction pipeline applied to news. Created a Semi-Supervised pipeline for data augmentation that allows to create training datasets with very few human intervention and that can scale to several hundred labels. In charge of data curation, training models, optimizing models and sanity checks. Also worked on Bayesian Modeling in order to determine causal relationships between events. Created several text classification models that are being used in Moody's News understanding pipeline.
Working on an internal tool using LLMs to query and the company's extensive KB and provide the users with valuable and reliable information.
Also working on benchmarking existing LLMs, creating guardrails and fine tuning smaller but more specialized models to be deployed in production.

AIVO, Machine Learning Lead

JAN 2020- JAN 2021

Lead of the Learning Squad, our team is in charge of the bot's conversational skills, as such I work on developing the models for intent matching, text correction, continual learning, information retrieval and re ranking.

I have created the current Deep Learning pipeline that replaces the old lexical engine. This new pipeline has achieved better metrics and also has the ability to learn from the user's feedback. This pipeline was also multilingual, scaling to more than 20 languages.

R/GA:, Machine Learning Lead

NOV 2019- JAN 2020

During my brief stint at the company I worked with clients like Google and

Toyota on ML projects.

With Google we developed an MVP using Computer Vision to assign scores in Surfing competitions and with Toyota we developed a forecasting model to predict store walk-ins and

to forecast sales, demand and car prices.

KEEPCON, NLP AND CV R&D.

NOV 2015 - OCT 2019

In charge of creating NLP and CV models:

- Text classification models such as sentiment, violence detection, hate speech, insults and other taxonomy classes.
- Multilingual models for part of speech tagging.
- Conversational models for customer support.
- Multimodal models for social networks, that is combining visual features with textual features for better understanding of social/customer interactions.
- Unsupervised text modeling/tokenization models.
- User segmentation/classification.

Freelance, AI consultant

JAN 2013- NOV 2015

- Stock forecasting and mathematical modeling of financial assets for Cohen Sociedad de Bolsa (using Deep Learning techniques) Risk modeling models for Cohen Sociedad de Bolsa (using DL techniques).
- Social Media Data Analysis: Involved in the development of a social media monitoring tool. In charge of developing AI algorithms to extract meaningful data from social data feeds such as extracting the sentiment of tweets/comments, creating word embeddings, dimensional reports, etc.
- Índice de Precio Cámara Inmobiliaria Argentina (CIA): I was in charge of extracting, analyzing and releasing a monthly report about the evolution of housing prices in Ciudad Autónoma de Buenos Aires.

MACS GROUP SRL, Co-Founder

JUN 2011- JAN 2013

In charge of the Machine Learning solutions portfolio, which included:

- Computer Vision models for a fashion retailer.
- Social media text analysis for a multinational telco.
- Machine learning models for usage forecasting for a multinational telco.
- Machine learning models applied to stock forecasting for a US based hedge fund.
- Sold my stake of the company to an outside investor.

VERIZON, Data Analyst Manager

MAR 2008- JUN 2013

Responsible for meeting the analytics/modeling needs of our various business units and departments. Specifically, my position was responsible for taking user requests and developing state of the art models using different algorithms such as logistic regression, decision tree, neural network and creating predictive models.

My team communicated results and provided recommendations to business users and executives. I worked as a lead team/manager member on large, highly complex modeling projects under minimal direction of management.

Mains tasks:

- Machine learning models deployment and research.
- Develop data reports responsible for helping customer service drive down customer resolution times.
- Regularly interact with various teams to help develop data reports to improve their overall business functions.
- Create reports and graphs from statistical customer data to help determine the highest priority products for the sales teams to pursue selling to customers.
- Prepare and present weekly reports for management to view the data teams weekly progress.
- Play an integral role in helping the company decide on the feasibility of entering particular markets based on statistical data.
- Create several data reporting processes from start to finish, which included the data mining, analysis and reporting pieces.

Accenture, Network Infrastructure Manager

DEC 2006- MAR 2008

- Provide day-to-day administration, career development, mentoring and human resources policy administration for all members of the team.
- Responsibility for weekly team conference calls, team building, recruiting activities, track industry trends and vendor product offerings, research, test, and evaluate infrastructure solutions according to business requirements.
- Develop the network architecture and related strategies for Accenture's global backbone,
- Ensure each of the team's projects follow existing program and project management guidelines.
- Provide guidance and direction to projects led by the team's Network Engineers or Senior Network Engineers, staffing of all projects and requests according to priorities, staffing levels, and operational obligations.

MCI, Sr. Internet Product Engineer (Team Lead)

NOV 2004- DEC 2006

In charge of the technical design of MCI´s backbone. I was the team lead and my daily tasks involved, assigning daily work to all team members, providing reports to upper management regarding committed and achieved SLAs, handling the installation/disconnections of important customers. My team managed IDA and IDE layer 3 circuits.

Education

2014-2018 **Mathematics**
UAI

2001-2006 **Systems Engineering**
University of la Matanza

Technologies

Python, Pytorch, Tensorflow, JAX.