Natalia Elezovic

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SUMMARY

- **Machine Learning/Deep Learning**: SpaCy, TensorFlow, PyTorch, Transformer-based Architecture, Hugging Face, BERT, Scikit-learn, NLTK, Keras, Gensim, TF-IDF, Word2Vec, Dimensionality Reduction, CUDA
- **Data Analysis & Visualization:** Regression Modeling, NumPy, Matplotlib, Plotly, Seaborn, Altair, Tableau
- **Programming Languages**: Python, SQL, SPARQL, JavaScript
- **Natural Languages:** English (Proficient), French (Intermediate), Italian (Native), Serbian (Native)
- **Data Management**: Relational Databases, NoSQL, Protégé, Ontology and Taxonomy Design, RDF, OWL
- **Tools & Platforms**: Visual Studio Code, Jupyter Notebook, Google Colab, Git, GitHub, Jira

PROFESSIONAL EXPERIENCE

Financial Data Transformations Team at the University of Chicago (Chicago, Illinois)   October 2023 – present

Data Management Analyst (Part-time)

- Performed advanced data collection, cleaning, and analysis to facilitate manipulation and migration of highly sensitive financial data, ensuring data quality and security
- Collaborated with business analysts and stakeholders, ensuring clarity in business expectations

Google Assistant NLP Team at Accenture (Dublin, Ireland)   February 2022 – July 2023

Natural Language Processing Linguist (Full-time)

- Tested, trained, and fine-tuned 8 machine learning models and LLMs, achieving a 52% improvement in model precision and accuracy within 13 months, demonstrating a command of resolving data quality issues
- Suggested improvement opportunities for complex datasets and modeling pipelines, resulting in close collaboration with senior engineering and product global teams
- Designed and delivered 7 technical guidelines for 30 team members, facilitating the adoption of best modeling practices, demonstrating the capability to drive business impact across the EMEA region
- Engineered and led technical trainings for over 30 computational linguists, significantly enhancing the team's capability to navigate complex technical processes and understand business needs
- Troubleshooted over 35 critical language issues that severely prevented or degraded the experience of English, Italian, and French-speaking Google Assistant users worldwide

PROJECT EXPERIENCE

The University of Chicago (Chicago, Illinois)   September 2023 – present

"Skyline" Virtual Assistant: Revolutionizing AirTravel with AI-driven Customer Support

- Led the design and implementation of an AI-powered chatbot designed to address customer queries about flight services to deliver real-time responses, deftly categorize queries, and streamline the customer journey. Optimized the system for fast business reactions and sophisticated sentiment analysis

"TextInsight": Insights into Product Performance Leveraging a Transformer-based Architecture and Machine Learning Models

- Designed and built a predictive framework to extract insights to investigate product performance, collecting a dataset of 60,000 user-generated product reviews, generating word embeddings, and implementing BERT for sequence classification and sentiment analysis in Tensorflow, k-means clustering, and LDA

"EthicsGraph": Building a Legislative Ontology to Classify AI Bias

- Designed a domain ontology of AI ethics within an OWL-based framework, integrating knowledge graphs to map 466 axioms, 80 classes, and 25 individuals, showcasing advanced ability to classify bias in artificial intelligence systems

EDUCATION

University of Chicago (Chicago, Illinois) | GPA: 3.98 | Dean's Scholarship ($33,000)   Expected June 2024

Master's Degree in Digital Studies (STEM), Major in NLP and AI

Coursework: Natural Language Processing & Cognitive Computing, Human-centered AI, Machine Learning and Data Visualization, Data Analysis & Statistics, Python Programming, Data Management with SQL

University of Parma (Parma, Italy) | *Summa Cum Laude*   September 2017 – March 2021

Bachelor's Degree in Applied Linguistics

Thesis: "Textual Analysis of Think Different by Apple: A Language-Technology Interface"