

Alex Szpakiewicz

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Profile

Ambitious and innovative engineer-in-training with a strong passion for Data Science and Artificial Intelligence. Currently pursuing a Master's degree at ESILV engineering school, specializing in cutting-edge AI technologies and data-driven solutions, and graduating in September of 2025. Proven ability to collaborate with cross-functional teams and effectively communicate technical concepts to non-technical stakeholders.

Experience

AI Development Intern

France

Softathome

Apr 2024 to Aug 2024

- Led the development of a comprehensive, company-wide chatbot solution aiming to streamline internal communication, reducing response times and improving employee satisfaction.
- Implemented advanced natural language processing techniques, including intent recognition and entity extraction, to enhance the chatbot's conversational abilities and comprehension of user queries.
- Collaborated with a multidisciplinary team of developers, product managers, and UX designers to ensure seamless integration of the chatbot with existing company systems and databases, resulting in a 30% increase in operational efficiency.
- Conducted rigorous performance analyses through A/B testing and user feedback to identify areas for improvement, implementing iterative updates that boosted user engagement metrics by over 40%.
- Presented findings and improvements to senior management, demonstrating the chatbot's impact on productivity and the potential for future enhancements.

Education

ESILV, School of Engineering

2020 to present

Master's in Major in Data and Artificial Intelligence

University of Technology of Sydney

Aug 2022 to Jan 2023

Student Exchange Program

Saint-Erembert High School, Saint-Germain-en-Laye

2017 to 2020

Baccalaureate in Math and Science

Projects

Private Company Chatbot

*Softathome, internship
2024*

- Designed and developed a proof-of-concept chatbot aimed at enhancing internal communication and knowledge sharing across company departments, facilitating quicker access to information and resources.
- Leveraged open-source natural language processing libraries (e.g., LlamaIndex or Langchain) and state-of-the-art language models (e.g., Llama or Mistral) to build a context-aware RAG (retrieval-augmented generation) chatbot capable of processing and responding to complex inquiries.
- Implemented robust data security practices to protect sensitive company information, adhering to GDPR regulations and ensuring user trust.
- Created a user-friendly interface that promotes easy interaction, coupled with integrated feedback mechanisms that allow continuous learning and improvement based on user input.

Data Pollution Analysis in Relation to Climate

*ESILV, school project
2023*

- Executed a comprehensive analysis of pollution data from major cities in the United States, identifying key trends and correlations with climatic conditions to inform policy recommendations.
- Developed a predictive model utilizing Python and ScikitLearn, achieving over 85% accuracy in forecasting pollution levels, providing valuable insights for environmental impact assessments.

Medical Data Analysis and Heart Disease Prediction

*ESILV, school project
2023*

- Conducted an extensive analysis of real estate data over the last five years in France, exploring the influence of the COVID-19 pandemic on property values and market trends.
- Implemented advanced Naïve Bayes models (including n-grams, binary, Gaussian, and multinomial) using Python and TensorFlow to predict heart disease risk factors, achieving a classification accuracy of 90%.
- Performed a detailed evaluation of model performance through precision, recall, and F1-score metrics, resulting in actionable insights that could be utilized for improving health outcomes.

Technologies

Programming Languages: Python, C#, TypeScript

AI Libraries: PyTorch, TensorFlow, Keras, scikit-learn, pandas

Databases: MySQL, MongoDB, Chroma, Upstash

MLOps: Google Cloud Platform, Docker

Languages

Languages: English (Fluent, TOEFL ITP-C1), French (Native), Polish (Fluent)

Soft Skills

Proficient in feedback methods and collective work, enhancing team dynamics and project outcomes.

Experienced in Agile work methods and Scrum methodology, facilitating effective project management and delivery.

Interests

Interests: Scuba Diving (Advanced Open Water Diver), Contact Karate (1st Dan Black Belt), Technology (AI development)